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EFFICIENT MARKETING FOR AGRICULTURE

ITS SERVICES, METHODS, AND AGENCIES

BY

THEODORE MACKLIN, Ph.D.

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FERRIS
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TO MY FATHER AND MOTHER

THIS VOLUME IS

AFFECTIONATELY DEDICATED

PREFATORY NOTE

More people are endeavoring to understand marketing now than ever before. Without attempting to say the last word on the subject the author has selected and organized economic facts to show that marketing consists in rendering essential services, and that production is in no sense complete until they have been rendered. Someone must do this work, otherwise producers and consumers alike are bound to suffer. Whoever renders these services efficiently is entitled to compensation. Since farmers and consumers, as well as middlemen, whether employed coöperatively, privately or publicly, are all performing some of these services, the question of fair compensation is ever before the public. The problem of marketing, however, is not likely to be solved until people generally realize the necessity not only of having necessary services performed, but of having them performed by the most efficient methods and by agencies that in functioning take a minimum share of the consumer's dollar. The subject is treated from the point of view of the common interests of farmers, consumers and middlemen.

The author wishes to express his thanks especially to Professor Richard T. Ely and to Professor Eric Englund for constructive criticisms and suggestions.

Theodore Macklin.

Madison, Wisconsin
August, 1921

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EFFICIENT MARKETING FOR AGRICULTURE

CHAPTER I

INTRODUCTORY

THE marketing of farm products presents a field of popular interest of the very highest importance. Scarcely a family or an individual in modern countries escapes the good or the evil effects of the marketing system. In fact the daily activities of consumers and of producers, considered either as individuals or as groups, are affected in a remarkable degree by the character of marketing.

Marketing is a Complex Economic Problem. — The widespread and ramifying forces of marketing, in bringing individuals and groups into economic relationships, present to the observer some of the most complex phases of economic relationships. As a study, therefore, marketing farm products must be classified as dealing with a specialized phase of human relationships. It constitutes one branch of economics which, until recent years, has been underemphasized. When search is made for an explanation of the tardy public interest in marketing there is no lack of adequate answers. The increasing productivity of industry and agriculture since 1776 has been amazing. In a very real sense marketing as an important phase of economics dates from the Industrial Revolution and to it owes its origin. Before this landmark in history, "1776," the political Declaration of Independence for America and the gradual economic emancipation from hand power and hand machinery for the world, farming was

quite largely self-sufficing. Since then farming has become commercialized to a remarkable degree. The shift has taken place so recently and rapidly in the United States that there are large numbers of farmers still living who have farmed under both conditions. Herein lies one of the factors contributing to the present importance of marketing. The conditions incident to the self-sufficing stage of agriculture are radically different from conditions found in a commercialized agriculture. The more rapidly and recently a pioneer or self-sufficing system has become commercialized, the more occasion there is for maladjustment of the various economic contacts involved. In the absence of customary practices and of adequate information to enlighten consumers and producers, profound and sudden changes in the economic system are bound to create intense interest. The popularity of marketing at present means a social demand for facts and for understanding. In the contrast of these two stages of agriculture, therefore, are to be found the chief factors giving rise to the importance of marketing.

Pioneer Agriculture is Simple. — Food and clothing are necessary to meet the primary needs of consumers. Under the former system of self-sufficing agriculture, wherein each family as a consuming unit planned how much raw material for food and clothing it should grow as a producing unit, there was very little marketing as known to-day. Marketing was of comparatively small importance during this stage of agricultural and economic evolution. Consumers were for the most part producers of the products which they consumed. There was little variety in the articles of food and clothing in any particular region. The variety of produce the land could be made to yield in a given locality largely determined what the people were to have for the satisfaction of their wants. The articles of food and clothing desired by any family and producible in the region established exactly

what that family should attempt to produce. There was little if any consideration of markets and market prices. Under these conditions the market was literally the family. The family being at the same time the producer, there was no complexity or difficulty in deciding what or how much to produce. The idea of cost of production of farm products had not been born. Mistakes in the choice of production and crop failures due to weather and seasonal misfortunes were measured, not in terms of excessive money costs accompanied by financial losses, but in terms of human privation caused by hunger and inadequate clothing. The system of production and consumption was simple and direct. It centered about the family and the farm. In one sense marketing did not exist. In another sense marketing was accomplished the moment that the farmer had delivered the products of the field or pasture to his wife. The fact that she made hominy, rendered lard, and performed many of the other services now accomplished by distinct and commercialized concerns is further proof of the simplicity and directness of the self-sufficing type of agricultural production and consumption.

Commercial Agriculture is Complex.—The operation of the self-sufficing type of farming obviously involved relatively few human relations so far as production and marketing were concerned. With the change from diversification to specialization in production accompanied by the shift from specialization to diversification in consumption the tables were completely overturned. Consumers who formerly produced almost everything they ate or wore, within a short time historically, were consuming an insignificant fraction of their output as producers. The bulk of articles consumed no longer were produced locally by consumers' efforts. They were produced, on the contrary, by specialized farmers and manufacturers scattered over this and other countries. In order that consumers might enjoy a wide variety of articles it became

necessary to bring these commodities to consumers from each of the regions in which they could be produced. Simple as this statement might seem on the surface, its accomplishment involved complete changes in farming and required the development of transportation systems. Gradually services in marketing had to be evolved and perfected, while methods of rendering these services had to be discovered, invented and improved. Motivating forces in marketing came into being in response to the needs of commercialized agriculture and various agencies set about with different methods to perform essential marketing services. Thus the creation and development of the commercialized form of farming hinged upon the establishment of innumerable individual and group contacts and relationships.

The change to commercial farming did not complicate the farmer's problem by creating mere multiplicity and complexity of economic contacts alone. It changed the farmer's simple task of deciding what and how much to grow under the self-sufficing system to a more complex problem in the commercialized system. Instead of ascertaining the needs of his own family and deciding to raise the quantity of each variety of products desired, the farmer in the present system proceeds in a roundabout fashion. The needs of his family are thought of in terms of a total of so many dollars' worth of goods and services. To be able to purchase these goods and services he must acquire an equivalent value in the form of net profit from his farm operations. To accomplish this essential purpose, the farmer must successfully interpret price levels and price fluctuations. Against these illusive and variable measuring sticks he must balance his real costs of farm production, for net profits are earned only when costs of producing and marketing amount to less than the income awarded through current prices.

It is the farmer's utter dependence upon prices in a com-

mercial system of agriculture which holds him within a complex series of economic contacts and relationships. Prices themselves, however, issue only when the numerous underlying forces of marketing are free to operate. Fetter the forces of transportation and witness the congestion of freight traffic, the piling up of commodities at terminals, the shortage of goods for consumers and the impossibility of moving raw materials from farms — all of which have been such vivid realities during the past year! Ordinarily when conditions arise which render the making of profit precarious or impossible a serious weakening of the incentive to produce or to render services on the part of numerous private corporations has resulted. The slackening or cessation of production in industries reduces the purchasing power of the industrial population. This in turn reacts upon and demoralizes prices, followed by decreased returns to farmers which inevitably reduces agricultural production. As a consequence, shortage of farm products pinches the consumer with every increase in the kind and number of his unsatisfied wants. In his dependence upon price the farmer likewise proves his dependence upon all steps and forces in the marketing system and upon the industrial conditions affecting the consumer's purchasing power, all of which are essential elements in the formation of price. In the last analysis, any obstruction or break in the route which farm products travel between farmer and consumer delays or prevents the delivery of products to consumers. This in turn retards or stops the payment of the consumers' money to farmers. The significant fact is that farmers are dependent upon consumers for returns which will compensate them for expenses of farm production and provide profits large enough to stimulate adequate production.

As already seen in the self-sufficing system the consumer directly requisitioned the farmer to produce and the consumer was also the farmer for the most part. In the commercial

agriculture, on the other hand, the consumer only indirectly requisitions the farmer to produce. The consumer is not the farmer primarily. Long distances intervene between the two groups. No longer is it possible for the farmer to make a direct count of the consumers' needs and produce accordingly. Instead, he gains a clue as to what consumer needs are by the relationship of the prices prevailing for the different farm products. Then in order to decide for which of these many wants he should endeavor to produce, it is necessary for him to compare his probable cost of production with his probable income calculated on the basis of prices that are likely to rule when the goods are sold.

It is the marketing system, then, in a commercialized agriculture which enables the consumer to make his wants known to farmers through the instrumentality of prices. It is also the marketing system which provides for the farmer a means of parting with his raw materials at the farm or shipping point, having them delivered to the consumer in finished form, and through which he receives the consumers' payment in settlement for his services. Furthermore, it must be emphasized that neither the consumer nor society directly orders any farmer to produce. Similarly no farmer is in a position to order directly the consumer or society to pay him for having toiled. Only when the farmer individually has correctly interpreted the true relationship of prices of farm commodities and the real costs of their production on his farm is he able to measure the value of his services to consumers in terms of net profits. Society owes no man a living. It provides opportunities only, the relative values of which the farmer himself must assume the responsibility of measuring. This he may or may not do successfully. The outcome depends upon his ability to understand prices and the forces that determine them, and upon his understanding of his own cost of production problems.

The modern farmer finds that many of his misunderstandings and problems are a consequence of the indirectness of consumers' requisitions for food and clothing. The same fact is responsible for the growth and development of the marketing system which so completely binds the farmer in close relationship to the rest of society. The recency and the rapidity of growth of the marketing system accounts for the general ignorance of its essential characteristics. Fortunately it is the realization of this ignorance combined with the healthy American incentive to gain knowledge and effect improvement that promotes the nation-wide interest in marketing.

Mutual Confidence and Efficiency Necessary. — In any relationship the character of the parties involved necessarily is of prime importance. Furthermore, dependable and efficient performance of the services which this relationship seeks to stimulate is essential. In considering the necessary conditions for satisfactory working of a marketing system there are two propositions which are axiomatic.

First.— Mutual confidence must exist among consumers, farmers and middlemen regarding their respective interests and performances in the marketing scheme.

Second. — Efficient rendering of essential marketing services must be continuous and dependable.

Obviously, satisfactory social arrangements are based upon confidence. Farmers engage in specialized production because they have confidence, first, that consumers will pay at least remunerative prices and, second, that compensation for their services will be forthcoming from consumers through the functioning of the marketing system. Inject into a smoothly working system some intimation that prices are unfair, that profits of a given group are tremendous, or otherwise promote a situation in which suspicion destroys mutual confidence, and either curtailment of production or restriction of services is almost certain to be felt. Far too frequently

marketing itself has been tiraded as woefully at fault, when in reality the characteristics of the people were such as to make mutual confidence impossible. In such cases improvement of marketing is secondary to enlightenment of the people. Unfounded suspicions are destructive and neutralize the benefits of any system. Elimination of suspicion and promotion of conditions stimulating mutual confidence are prerequisites to general improvement in marketing. Undoubtedly education is a primary factor in accomplishing this result.

It should be emphasized that, regardless of the previous degree of mutual confidence, any discovery that the marketing system is functioning inefficiently will create dissatisfaction. The real significance of this form of dissatisfaction lies in the fact that, its cause being known, constructive action can be taken immediately to bring readjustment or improvement. The blind and paralyzing dissatisfaction which flows from suspicion, on the contrary, charges the marketing system with inefficiency and worthlessness no matter how excellent or poor it may be. In such cases constructive change in the system of marketing itself is futile until the people involved first have been enabled to regain mutual confidence. So long as suspicion dominates the parties concerned in marketing, the degree of efficiency developed by marketing concerns is of secondary importance. Suspicion prevents both recognition and consideration of the merits of any system.

In contrast to the essential conditions for the smooth working of the marketing systems there are complicating or disturbing outside forces which must not be confused with marketing itself. These forces may be summarized in three groups, all of which act literally as wrenches in the machinery of marketing. They are:

First. — The psychology of consumers.

Second. — The psychology of farmers.

Third. — The motives and conduct of middlemen.

Consumer Characteristics Complicate Marketing. — There is something in consumer psychology which creates an intense desire for choice or fancy articles. The consumer wants the best flour, the best bacon, the finest shoes, in fact the top only too often seems none too good. In the search for possible purchases this hankering for the best leads to disproportionate consideration of top prices. Lower grades of commodities are hastily surveyed or ignored and their moderate prices scarcely receive attention. The recollections of the shopping excursion vividly picture fancy products and top prices. This undue consideration of articles in which there is the greatest scarcity, highest demand and hence high price promotes a feeling of economic pressure. It unavoidably leads to denunciation of high prices on the part of consumers. But were prices in reality high? Was not the trouble due partly to the fact that the consumer in searching for the scarcest and highest priced goods failed to comprehend that the bulk of commodities suitable to his needs ranged far lower in price? Unfortunately the carcass of a fat steer is so constituted that less than nine per cent is the high-priced porterhouse. Yet the bulk of the carcass represented by other cuts sells at one half the price of this fancy cut. Strange as it may seem to the consumer, only a minor fraction of agricultural production is of the fancy or choice grade. The vast bulk of commodities is of only fair or moderate quality. Their price is correspondingly lower than the price of the select commodities which retailers advertise and which the consumer so invariably demands.

After all, the consumer is misled by a peculiar pitfall. The desire for the best necessarily leads him straight to the highest prices where economic limitations are the most striking and severe. The reaction is unavoidable. Prices are condemned. The real meaning and justification of prices, together with the important functions which they perform, are

unknown and unappreciated. This impulsive condemnation of prices, and at times the attempts toward their artificial reduction, serve as a safety valve to popular indignation. Unfortunately this sort of reaction is destructive. In overlooking the facts which underlie the price situation consumers aggravate the very conditions which they denounce without doing what they easily could to improve the situation. Instead of indiscriminate price condemnation and abuse of middlemen, the same energy devoted to learning how the lower grades of products might be utilized satisfactorily and to stimulating the production of a greater supply of high grade goods would be a constructive step toward successful solution of the retail price problem. Instead of demanding that the government artificially lower prices, regardless of the causes for their being high, the consumer has vastly more to gain by attempting to create conditions which supplement or assist the high prices actually to stimulate increased production.

In abundance of goods is to be found the fundamental means both of supplying the consumer and of reducing prices. Fortunately increased individual production as a rule is also in line with the farmer's interest, because though prices fall, greater volume generally maintains aggregate individual earnings. Ordinarily commodities are scarce when prices are high, and it is this high price which requisitions the farmer to increase production because he sees in it the opportunity to earn a larger net profit. But when the consumer, due to a psychological bent, thinks in terms of choice products and top prices and then reacts by fighting the fundamental forces operating in economic life, he literally "kills the goose that lays the golden eggs." Abnormally high prices bring into existence an increased supply. Uninformed consumer action, whether directly in "boycotting" or indirectly in the creation of uneconomic legislation and in destructive court decisions, obstructs the marketing system, reduces the share of the con-

sumer's dollar which reaches the farmer, and at least temporarily reduces the forthcoming supply of products for consumers. It is important to distinguish between these general influences under which the marketing system must operate and the marketing system itself. No matter what the mechanism may be, its operation is smoother and more satisfactory when accomplished in a psychically ideal medium. Emphasis must be placed on the fact that consumer psychology is partly responsible for the creation of a medium unfavorable to satisfactory operation of any system of marketing farm products. Ordinarily in criticizing marketing the public conceives as one problem both marketing and these outside unfavorable conditions. In a scientific treatment the two problems must be separated.

Farmer Suspicion Reduces Marketing Efficiency. — As a great class of people, farmers undoubtedly find much in their seclusion and experience to promote an almost inherent feeling of suspicion. At present a part of their individual psychological make-up is a suspicious attitude toward most other individuals. This suspicion of the farmer makes him a prey to ingenious politicians and to the designing promoter — both of whom, while shedding crocodile tears of sympathy, feather their own nests, the one in office and the other in such shameless profiteering as business men would not dream of. Why, for example, does farmer "A" prefer to drive his wagon five miles to town for a load of corn from an elevator rather than to dicker with his neighbor, farmer "B," across the road? Surely if he is suspicious that a neighbor might exact unfair advantage, it is not strange that he should at times be suspicious of middlemen. The practical results of this widespread weakness of farmer psychology are to be found not alone in the attitude toward private marketing concerns. They are exhibited in the petty jealousies and suspicions which, abounding in farmers' local organizations, frequently

cause their failure. It is this same suspicion which prevents the amalgamation or consolidation of local coöperative concerns into efficient large-scale marketing companies capable of bringing actual improvement. If farmers are suspicious of each other, of their own boards of directors, and of managers in their own coöperative companies, certainly it is not surprising that they should be almost universally suspicious of private individuals and corporations engaged in similar work.

The unfortunate consequences of this trait of farmer psychology are felt in the inaction which characterizes the business sessions of boards of directors in many farmers' companies. They are equally evident in the paralyzing limitations imposed on managers in so many of the local coöperative concerns.

If unfavorable influences accrue to coöperative ventures, far more detrimental consequences react upon private concerns. The net result amounts to a clouding of the minds of farmers and to the fostering of antagonism between farmers and middlemen of all kinds. As a consequence, improvement is sought not through constructive search for specific faults, for which definite remedies might be worked out, but through generally prohibitive or negative legislation and rulings. Farmer suspicion, regardless of the intrinsic merits of the marketing system itself, produces a medium in which the system is obliged to operate, as it were, against a needless break. Charges that profiteering rules, that paying ruinously low prices is universal, and various other complaints, when unsupported by fact, as so frequently is the case, tend to discourage maximum production of the most profitable kind. Such charges also tend to increase the costs of marketing by calling forth action, counter opposition and propaganda on the part of middlemen. As a result of farmer suspicion, many evils are fostered which are in no sense a part of the marketing system. Yet the two groups of conditions have been

merged in the popular mind as confused parts of a single problem. For example, suspicion frequently prevents a group of farmers from appreciating the merits of certain of their own efficient marketing systems. Under such circumstances marketing is not the problem at all. Improvement in these instances depends upon elimination of conditions that create disbelief more than upon changes in marketing methods, though both are essential. These outgrowths of farmer psychology must, therefore, be distinctly separated from marketing in a careful study.

Middleman Attitude and Conduct Promote High Marketing Cost. — In any segregation of the personalities which react upon but are not inherently a part of the marketing system, the middleman should receive his full share of attention. Human nature must bear the praise or the blame for the fact that individuals, whether farmers, middlemen, or consumers, are each working diligently in behalf of what they regard as their own interests. As buyers, each has the same motive, to buy as cheap as possible. In these respects there are no differences to be found in the three groups. The peculiar personality of the middleman, so far as marketing is concerned, lies in his attitude and practices rather than in the rightfulness of his motive to buy at minimum prices and sell at maximum prices. Consumers and farmers are generally of the opinion — rightfully so — that the number of middlemen should be limited strictly to that number which can most efficiently render the essential marketing services. This widespread opinion holds that the consumer is of first importance in society. Since one group of consumers is also simultaneously producer of commodities largely utilized by some other group, or by society generally, no distinctions in relative importance of consumers and of producers or farmers are worth while. Since farming is most efficiently conducted by farmers whose farms are relatively small, a great number

of farmers are entirely necessary to produce raw materials for food and clothing adequate in quantity to meet the needs of a dense population of consumers. On the contrary, if marketing is to be accomplished with the least expense and this is to be realized only by having enterprises of larger size, there should be no more middlemen in business than are required to operate the necessary number of marketing enterprises, each of which conforms to conditions necessary for real efficiency.

Marketing contributes benefits to consumers not by creating physical commodities but by rendering certain necessary services. Unlike farming, middleman services are most efficiently rendered by large-scale units. The consumer and farmer are both primarily interested in being served most efficiently by middlemen, because this would mean minimum prices for consumers as buyers, consistent with maximum prices to farmers as sellers. Thus both parties are satisfied. In actual practice, however, middleman services are not as a rule performed by operating units of sufficient size to be rendered most economically. Generally speaking, too many people are attempting to render these services and as a consequence the entire volume of business is divided among units so small as to be inefficient. Thus in a line of work where the minimum number of middleman concerns would most efficiently serve consumers and farmers, the excessive number is attributed to the grasping motives of private profit makers. The desire for private profit is, therefore, held responsible for evils in marketing. So many people are in the marketing business that the units become inefficiently small and competition is weakened to the point where all are compelled to fall in line with the charging of high prices to consumers and of paying low prices to farmers. The supposed motive of the middleman, so far as consumers and farmers are concerned, is accordingly thought to be wide margins. In the attitudes

of numerous middlemen, large numbers of both farmers and consumers feel that they have ample proof. As a consequence of this universal tendency of middlemen to ignore the public demand for accurate information about their part in the marketing system, it must be admitted that the suspicions of both consumers and farmers have been greatly strengthened and aggravated. To this extent, at least, the motives and attitude of middlemen constitute a further discordant element, creating friction and obstruction to the best working of the marketing system. Yet this attitude on the part of middlemen, and the characteristics of consumers and farmers mentioned earlier, are in no sense inherent in the marketing system itself. They are outside forces which serve to complicate a problem which of itself is exceedingly complex. Happily, however, they are characteristics which may be altered by the dissemination of reliable information.

Quantity and Value of Farm Products Marketed. — The marketing of farm products to the general public is measured by the vast quantity and value of the commodities handled. Food and clothing represent an expenditure of approximately 55 per cent of the consumer's income, about 38 per cent being for food and about 17 per cent for clothing.[1] The raw materials for making both of these lines of goods come almost entirely from farms. Nearly 25 billion dollars' worth of products were turned out for these purposes by the farms of the country during 1919. A very high proportion of these basic materials, in some form or another, was handled through at least a portion of the marketing system. The principal classes of these products with values are indicated in Table I. There is unavoidably considerable duplication in these values. For example, corn and hay and forage are almost entirely fed to live stock on the farms where they were grown.

[1] U. S. Department of Labor, Bureau of Labor Statistics — monthly Labor Report, Vol. X, No. 1, p. 98.

TABLE I.—THE CHIEF CLASSES AND FARM VALUES OF AGRICULTURAL PRODUCTS, 1919[1]

Class of Products	Value	Per cent
Animal products	$8,957,494,000	35.8
Cereals	7,473,778,000	29.9
Cotton	2,324,695,000	9.3
Hay and forage	2,306,916,000	9.2
Vegetables	1,479,192,000	6.0
Fruits	730,109,000	2.9
Tobacco	542,547,000	2.2
Sugar crops	146,607,000	.6
Other crops	1,020,889,000	4.1
Total	24,982,227,000	100.0

Their value amounted to $6,241,159,000, most of which should be deducted from the total value of farm products in order to visualize the actual values which are handled by the marketing system. Without considering corn, hay and forage the relative values of the products marketed are shown in Table II. To those who have followed the farmer agitations regarding the marketing of live stock, of dairy products, of cotton and of wheat, it is interesting to note that approximately 62.8 per cent of the estimated farm value of products entering the market channels consist of these four types of raw materials. In a considerable measure, therefore, from the respective points of view of both consumers and farmers, these percentages enable one to see which products are the most important in marketing.

It should be remarked that there is little if any relation between the volume of products marketed and the intensity of farmer or consumer dissatisfaction regarding the marketing scheme as developed for their disposal. It is entirely conceivable that a much more acute marketing problem may

[1] Data from Bureau of Crop Estimates, U. S. D. A. (U. S. D. A. is the abbreviation for United States Department of Agriculture and will be used hereafter.)

TABLE II. — FARM VALUES OF LEADING PRODUCTS LARGELY MARKETED[1]

PRODUCT	VALUE	PER CENT
Animals sold and slaughtered	$4,634,119,000	24.7
Dairy products	2,788,562,000	14.9
Cotton	2,324,695,000	12.4
Wheat	2,024,008,000	10.8
Other grains (excludes wheat and corn)	1,515,536,000	8.1
Poultry products	1,359,360,000	7.3
Vegetables (excluding potatoes and sweet potatoes)	763,526,000	4.1
Potatoes	577,581,000	3.1
Tobacco	542,547,000	2.9
Fruits (excluding apples)	454,646,000	2.4
Apples	275,463,000	1.4
Wool	159,782,000	.8
Sugar crops	146,607,000	.8
Sweet potatoes	138,085,000	.7
All other crops and animal products	1,036,560,000	5.6
Total	$18,741,077,000	100.0

occur in connection with a commodity produced in small quantity, such as wool, than is likely to be true of a product turned out in immense volume, such as wheat. From the standpoint of all consumers and of all farmers a small evil in the marketing of wheat might be far more serious in its consequences than a great evil in the marketing of wool. Yet agitation about wheat might be slight as compared to that over wool. To the individual who either produced or consumed a large quantity of one or the other, however, there would be no question as to which presented the most important problem. The wool grower would be certain that marketing wool was the real problem, while the wheat grower would be equally convinced that his was the paramount issue.

Marketing is a subject, therefore, about which individual points of view and specific grievances readily become crystal-

[1] Data from Bureau of Crop Estimates, U. S. D. A.

lized. Sentiment combined with lack of facts and understanding contribute both to confusion of thought and to demand for remedial action. Unfortunately both consumers and farmers are especially uninformed and, therefore, willing to give their influence and support in behalf of impractical solutions. Their sentiment is frequently the cause of violent outbursts against a system which, however imperfect, is essential to commercialized production. In consequence of both inadequate economic facts and conclusions as well as misinformation, the public unavoidably has become skeptical and suspicious of marketing and of middlemen in general.

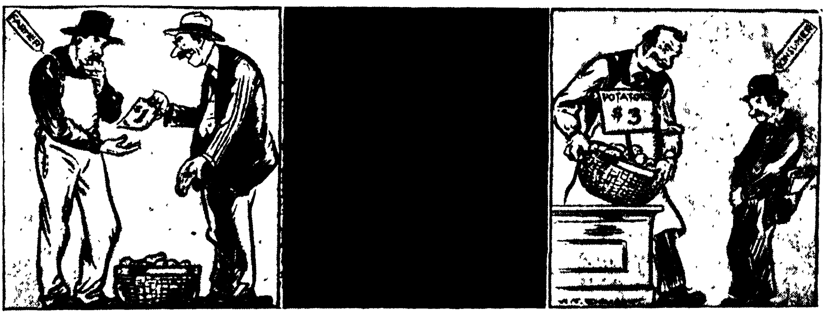

FIG. 1.—WHAT HAPPENS IN THE DARK?

The universal inability of farmers and consumers to answer this question proves how little is generally known of the economics of marketing. (Courtesy *The Country Gentleman*.)

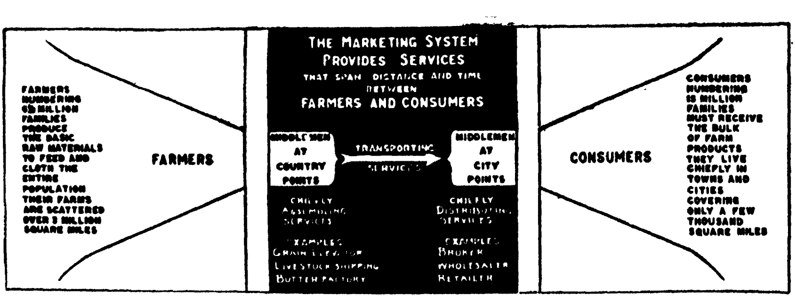

FIG. 2.—ESSENTIAL SERVICES ARE RENDERED IN THE SO-CALLED "DARK" BETWEEN FARMERS AND CONSUMERS

The distance between farmers, each producing small quantities, and consumers, each demanding very small purchases, makes necessary the services of assembling, transporting and distributing which specialists or middlemen alone can render cheaply.

No better indication of this general uncertainty of marketing ideas is to be found than the popular recognition and approval which accompanied the appearance of a certain cartoon entitled "What Happens in the Dark." (See Figure 1.) That this cartoon should have been widely distributed in the *Country Gentleman*, reproduced in various publications and posted widely as a handbill, is ample suggestion that it accorded with the general lack of information and the usual conception of the marketing problem. That it raises a question to which no one has given a comprehensive answer emphasizes the urgent need for a reliable presentation of what marketing is and does.

In answer to the cartoon and question "What Happens in the Dark," Figure 2 presents a graphic illustration of the principal things which marketing must accomplish. In doing this it shows in part what happens in the dark. Between farmers and consumers, all products, no matter how simply they are marketed, must be assembled, transported and distributed by some one. Economic considerations require that these and other marketing services should be performed by specialists who have become known universally as middlemen. Manifestly an answer to "What Happens in the Dark" must clearly analyze the services of middlemen, the methods of marketing, and the agencies which control marketing. This in turn requires extended discussion of the numerous marketing services and problems which are necessarily implied in Figure 2, though not named or described therein. In fact, this problem is so large and complex that a careful answer requires so much by way of facts and discussion that space anything short of a book is inadequate. The present volume is devoted to this task with a hope of placing representative facts and important economic principles before those who are interested in better marketing.

SUMMARY

1. Marketing is necessarily complex because it consists of relations which in one way or another influence all individuals in society.

2. Marketing was not a problem in the self-sufficing agriculture of the recent past because the farmer was both producer and consumer of virtually all that his farm yielded. Products were utilized almost entirely where they were created.

3. Marketing is a vital part of specialized or commercial agriculture because the surplus products thus created must be distributed over long distances to a large number of consumers. The farmer by cultivating his land only does not provide all of the accomplishments which result in consumption as he formerly did under the self-sufficing system. The new requirement of moving products from farms to distant consumers made a marketing system essential and called into existence specialists to render services as middlemen.

4. Complications in commercial farming and misunderstandings of the marketing system arise because of the difficulty of telling what and how much to produce. The change from the simple problem of raising what a man's own family needed to producing for hundreds of people what would result in profit to the farmer has been so rapid that few fully realize the responsibilities imposed upon them by the new agriculture. Time and education along economic lines are two essentials to improvement in this respect.

5. Mutual confidence on the part of all affected by the marketing system and efficient operation of the middleman business are two axiomatic propositions upon which smooth working of the marketing system depends.

6. Three obstructions at least are acting as sand in the machinery of marketing and hence preventing its smoothest operation. These are certain elements in the psychology of consumers and of farmers and in the motives and conduct of middlemen. These discordant elements are not a part of marketing itself but react upon it seriously.

7. More than half of the consumer's dollar is expended for food and clothing. The farm value of agricultural produce raised by farmers in 1919 to meet these requirements amounted to almost 25 billion dollars, of which about 19 billion dollars' worth entered the channels of commercial marketing.

8. While the public knows very little about the marketing system and generally has acquired sufficient knowledge only to ask, "What Happens in the Dark?" it is certain that many important services are rendered between farmers and consumers. These span distance and time which separate one from the other.

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CHAPTER II

THE ECONOMIC BASIS OF MARKETING

STRANGE as it may seem now, the earlier efforts to improve agriculture were almost wholly devoted to plans for the stimulation of increased production. So long as farming was of the pioneering or self-sufficing sort, the motto, "two blades of grass where one grew before," regardless of other considerations, was doubtlessly best. There can be very little justification, however, for carrying this motto of an outworn economic system over into the modern commercialized agriculture without giving adequate consideration to the economic phases of the farmer's problem. Yet this is precisely what the farmer finds has happened. Even the economist was tardy in appreciating and advising that a different motto should be adopted. The farmer who has caught the full spirit of commercialism and has applied it in his farming sees no value in the idea, "two blades where one grew before," unless more dollars in net profit come to him as a result. The use of the words *production* and *productive* has not carried the same meaning at all times. For the self-sufficing farmer as an individual, *productive* meant the creation of physical commodities. Regardless of the efforts or costs of obtaining them, these directly satisfied his family needs. To the commercial farmer as an individual, on the contrary, the word *productive* means the earning of net profits. While he may produce physical commodities which add to the total quantity of a nation's food and clothing, as an individual the modern farmer obtains no personal share unless he has made a net profit with which to buy them.

Unfortunately many imagine that general overproduction is a constant possibility. This is not the case. Instead, unbalanced production occurs which reacts upon those who temporarily produce too much of some particular commodity. Thus more wool may be produced in a given period than consumers will buy at remunerative prices. In cases of this sort farmers inevitably suffer the consequences of unsatisfactory prices because production is not maintained in proper balance with consumption. To assume, however, that low prices for wool mean that general overproduction has taken place is a contradiction of fact. Unbalanced production, evidenced on the one hand by too large a temporary supply of wool, is accompanied on the other hand by too small a temporary supply of some other article. While these conditions are noted in one part of the world millions of people are starving and freezing to death in some stricken part of the earth. The evil in this situation, which injures farmers by absurdly low prices for a product necessary in the long run, is due not to general overproduction but to unbalanced production and to certain conditions which prevent ideal distribution of supply. The former relates to the farmer's individual problem of what and how much he should produce; the latter to the marketing system and the degree to which it now accomplishes work necessary to the welfare of society.

Essential Middleman Services are Productive. — Because of the different meanings which may be read into the same word, the economist has endeavored to make his definition of *productive* hinge upon fundamental considerations. His examination of the interests of consumers and of producers brought to light certain basic facts. Consumers have a variety of wants, some of which are entirely satisfied without conscious effort, others are readily satisfied with some effort and still others are only partially satisfied with varying degrees of effort. Those goods which are so numerous as to

result in unconscious consumption require no replenishment by human effort. Those goods, on the contrary, which, without man's efforts, exist in quantities insufficient to meet consumers' needs call forth varying degrees of human effort. The greater the scarcity of commodities or services which consumers desire, the more effort they put forth as individuals in trying to obtain them.

Because individuals may devote themselves to the task of securing goods either directly as in a self-sufficing system or indirectly as in the commercialized system, the definition of *productive* must stand upon a principle and not upon superficial considerations. It follows from this principle that the character and intensity of consumers' wants should determine and justify the kind and degree of effort required to bring about an adequate supply of whatever may be needed to satisfy these wants. Manifestly it is impossible to satisfy a consumer's wants unless the commodity, or service containing the power to satisfy, first be made available to him. It is established by this, therefore, that all forms of essential effort required to bring satisfaction to consumers are productive. Upon examination, these efforts required to bring satisfaction to consumers are found to have varied greatly at different times. When the consumers of the country were also the farmers, and agriculture was self-sufficing, there was no need for a marketing system. Consumers' needs were satisfied without it. But to-day, when products are grown at great distances from consumers and agriculture has become highly specialized, it is impossible to satisfy the wants of consumers without services which are rendered by a complex marketing system.

The Economic Meaning of Production. — In attempting to give a correct and clear definition of *production*, the economist first establishes that the ability or power of any article or service to satisfy a human want is to be known as a *util-*

ity. Production then consists of all those essential human efforts which contribute to the creation of utilities. Utilities in turn are classified as five kinds: (1) elementary utility, (2) place utility, (3) form utility, (4) time utility, and (5) possession utility. The meaning of these technical terms may be more fully studied in any standard book on general economics.[1] For the present purpose it is sufficient to remark that this abstract classification serves as a "short-cut" expression referring to very definite scientific ideas. For example, consider in terms of these utilities the various human efforts which are involved in satisfying the consumer's desire for bread. First, the farmer undertakes the various tasks which result in a harvested crop of wheat. In rendering his services he has produced a basic food article which has intrinsic value. The economist would say that the farmer had created *elementary utility*. With respect to the consumer in some distant city, however, wheat on a farm, while it contains intrinsic or elementary utility, is nevertheless incapable of satisfying a want for bread. It is necessary that the wheat be removed from the farm and placed with the consumer before he may make use of it. The services, resulting in the transporting of wheat to consumers, create *place utility*. But unfortunately wheat in the hands of the consumer by no means enables him to eat bread. The whole wheat requires grinding into flour. It is the miller who, in performing that group of services which convert wheat into flour, creates *form utility*. Because of the fact that consumers do not desire to receive a year's supply of flour at one time, while farmers harvest the crop of wheat at one time or during the few late summer and early fall months, some one finds it serviceable and profitable to provide storage space in which both wheat and flour are stored until such times as the consumer requires them. In rendering these services the concerns which store

[1] Ely, R. T. and Wicker, G. R., *Elementary Principles of Economics*, Book III, Part I, Chapter I.

wheat and flour create *time utility*. But even though the farmer has successfully performed his part in growing wheat and transportation facilities await the time when they can do their part in carrying the grain forward, it is unlikely that millers and storage concerns will render their services, or that consumers will gain any satisfaction, until one other utility has been created. The consumer cannot as a rule make use of bread which he does not own. Wheat cannot be stored unless the service of storing it is authorized by an owner. Furthermore the grinding of wheat into flour cannot be undertaken except as the owners of the grain order it to be milled. It is apparent, therefore, that ownership or possession of the wheat, the flour and the bread necessarily precede these subsequent services which finally lead to satisfaction on the part of consumers. In performing services which enable different middlemen and finally consumers to own or possess wheat, flour, or bread, marketing concerns create *possession utility*.

Production Defined. — Popular use of the term *production* has been limited in meaning to that part of these many services which are performed by farmers. As was shown in Chapter I, the self-sufficing agriculture was conducted with little or no need for a marketing system. As a consequence of the rapid change to commercialized farming and the absence of information to show the character of the change as well as the requirements of the new system, farmers and consumers still think in terms of a self-sufficing agriculture, while acting in the present on the basis of less understandable but unavoidable commercial conditions. The popular and incorrect understanding of the word *productive*, however, must be replaced by the scientific and true meaning. The real meaning of the term *production* is the creation of all of these utilities. In other words, *production consists of the rendering of all those essential services on the part of farmers and of mid-*

dlemen which actually bring into use the goods and services required to satisfy the wants of consumers.

Marketing Services Create Utilities. — To most farmers, consumers and middlemen, no matter how useful and accurate the definition of these utilities may appear to economists, there is doubtless a feeling of confusion. The practical person thinking in terms of concrete actions and results knows that certain things are undertaken and accomplished by mid-

CLASSIFICATION OF MARKETING SERVICES AND THE UTILITIES WHICH THEY CREATE

1. Elementary utility is created by the farmer's services through his individual farm operations in contrast to marketing services below.

Utility of	Created wholly or partly by marketing services of
2. Place	1. Assembling 2. Grading and Standardizing 3. Packaging 4. Processing 5. Transporting 7. Financing 8. Distributing
3. Form	1. Assembling 2. Grading and Standardizing 4. Processing 7. Financing
4. Time	1. Assembling 2. Grading and Standardizing 3. Packaging 4. Processing 6. Storing 7. Financing
5. Possession	1. Assembling 2. Grading and Standardizing 3. Packaging 4. Processing 6. Storing 7. Financing 8. Distributing

dlemen. Without first having attempted to classify these things, as the economist has done, the reader may very reasonably consider the five utilities as abstract and impractical. A little thought, however, will clear up this dilemma. The five utilities are the headings of a classification in which the marketing services are the essential parts. This relationship is indicated by the classification on the previous page.

Many different things have to be done in order to create each one of these utilities. Sometimes only a few services are rendered by a single marketing concern and sometimes many are performed. For the purpose of clearly analyzing the marketing system it is desirable, therefore, to comprehend not only the scientific short-cut terms, but also to understand the exact services which are rendered in creating each of these utilities.

Marketing Defined. — The marketing of farm products represents one essential part of economic activity. It is in reality part of production just as surely as farming is a part of production. While the present work treats marketing of farm products only, it is assumed that farm production means the creation of those elementary utilities which the farmer creates in the raising of crops and live stock. The farmer produces visible physical commodities. Much of the work done by the marketing system represents comparatively invisible though necessary services. *Thus marketing as related to farmers may be defined as the rendering of those essential services which enable the consumer to utilize the products of farms.* Abstractly marketing refers *to the creating of place, form, time and possession utilities.* Concretely it means *the rendering of no less than eight types of necessary services.*

Marketing Provides Essential Services. — These definite marketing services[1] are (1) Assembling; (2) Grading and Standardizing; (3) Packaging; (4) Processing; (5) Transport-

[1] *Successful Farming*, Aug., 1920, pp. 5, 30, 31.

ing; (6) Storing; (7) Financing; (8) Distributing. To be practical, a study of marketing must examine the methods of rendering these services and the agencies which provide them. Moreover, the conditions which determine efficiency and adequacy in the rendering of these marketing services must not be overlooked.

A study of what marketing is and does, therefore, must examine the various marketing services and determine why they are performed. There can be no justification for the performance of nonessential services in the marketing of farm products. The public interest, as well as that of both farmers and consumers, is rightfully centered on the determination of whether all the services involved in marketing a specific product are necessary. In Chapters III to XI, inclusive, each of these marketing services is considered separately. Facts are presented and analyses made which attempt to give a clear and sound understanding of each of these phases of the marketing problem.

Marketing Includes Methods of Rendering Services. — While certain marketing services are fundamental the methods by which these services are rendered are equally important. A product may be expensive because a poor method has been employed in its making. The method itself may be poor. The expenses of operation are high or the quality of product turned out is low because the method of rendering services is poor. The interests of both farmers and consumers are conserved when the best method, that is, the one turning out products of the highest grade at the lowest possible cost, is utilized by middleman concerns. But unfortunately at any given time there are poor marketing methods in use. The public, therefore, is interested fully as much in having all products marketed by the best method as it is in knowing that nonessential services are not being rendered. In Chapter XIV facts are presented and an analysis given

which establishes the character and merits of each of the three important marketing methods. These are (1) the regular marketing method, (2) the integrated marketing method, and (3) the direct marketing method.

Marketing is Performed by Different Agencies. — While society is deeply interested in knowing how necessary marketing services are and what are the methods of rendering these services, it is apparently far more vitally concerned at present with the men or concerns who actually do the marketing. The marketing system, like all other human creations, is exactly what the men in the business make of it. Therefore, the policies which are followed by middlemen are vital to all concerned. It must be admitted that there are distinctly different policies carried out in actual practice. Upon the basis of their motives, middleman concerns may be divided into three main groups known as marketing agencies. In numbers of concerns and aggregate quantity of business these agencies must be ranked as follows: (1) the private marketing agency, (2) the coöperative marketing agency, (3) the governmental marketing agency. Each of these agencies has strong and weak points and undoubtedly each has a place in any well-balanced marketing system. The discussion of the agencies themselves will be found in Chapter XV.

Marketing Connects Consumers and Farmers through Definite System. — Having placed before the reader this plan or classification of the important elements of the marketing system, let us further attempt to visualize what the system accomplishes. In a country of approximately 21 million families or 105 million people, all of whom are consumers, there are probably not more than 6½ million families devoted to farming. In studying the marketing of farm products the primary interest is, therefore, to gain an understanding of how the products of these 6½ million farms reach 105 million consumers. Let the reader imagine himself view-

ing a city and its immediate surrounding and a distant farming territory. A network of roads, and here and there the slender lines of railroad tracks connect the rural territory with the urban districts. What an immense area of land is being farmed before your eyes in comparison with the small area of land occupied by the buildings and activities of the city! Yet from these farms, spread out everywhere over a tremendous area, products must be gathered and gradually assembled at local points from which they may be sent further on their way by railroad. On the arrival at the city the products, instead of being scattered widely, as they were on the farms, are now concentrated into immense quantities. The city people who are to consume these products, however, while not anything like so widely distributed as farmers, are nevertheless so situated that they are scattered over considerable areas. Moreover, they are relatively inaccessible so far as acquisition of needed products is concerned. To guarantee that these products will continue on their way to consumers, requires the various services known as dissembling or distributing. These accomplish substantially the reverse of what assembling does at country points. The marketing system in providing the three primary services of assembling, transporting, and distributing may be thought of as resembling two funnels whose small restricted ends are united. All of the products leaving farms and passing through the marketing system enter one end of the double funnel. They issue forth at the other end of the double funnel after necessary services have been performed which not only make raw material into finished articles but place finished goods in the hands of consumers in suitable kind and quality at the right time and place.

A glance at the diagram in Figure 2 will make this idea clearer. From each of the 6½ million farms scattered over three million square miles there starts a small stream of sur-

plus products of various kinds. Very few of these minute streams are large enough at one time to fill a freight car or to provide what may be called a marketable quantity. A number of these tiny streams of products must be united — run together — in order to fill a car or justify the operation of a grain elevator. Live stock from many farms is required to keep a packing plant running. A successful creamery calls for the butterfat from a hundred or more specialized dairy farms. In the illustration, then, let the reader imagine millions of small streams of products flowing toward a common point — the consumer. The streams springing from the farms in a given locality follow the roads to a shipping point where they are united and continue to flow as a single large stream along the railroad. But just as a large number of local country roads converge about the shipping point, so also a series of branch railroad lines unite in a trunk line. Over this trunk line flows the mighty river of farm products which the farmer visualized only in terms of his small contribution. Since the farmer as an individual loads directly few of the cars that are shipped, grades scarcely any of the products, or converts almost none of them into finished form, some one other than the farmer is obliged to do these things at country shipping points or at other points along the way to the consumer. Those who render these services are specialists known as middlemen. At the country end of the funnel the work of middlemen is primarily to render assembling services. However, they may perform additionally any one or all of the other marketing services in varying degrees. In assembling products the middlemen at country points literally form the restricting or narrowing portion of the funnel. Without their efforts it would be far more difficult than it now is for the farmers of the country to utilize economically the transportation system.

Having bridged the greater part of the distance between

farmers and consumers the transportation system turns the product over to another group of middlemen. At this point in the diagram the funnel commences to enlarge. The products in passing on their way to consumers necessarily must be broken up again into smaller streams just as a large irrigation canal is broken into sub-canals, laterals, and finally into farm ditches. This work of distributing finished food products and clothing requires successively more middlemen just as the irrigation requirements of a number of farms call for the attention of more men than are needed to look after the main irrigation canal. The middlemen at city points primarily render distributing services. In the following chapters these and other essential services are treated at length.

SUMMARY

1. The idea has developed among farmers that the term *productive* applies only to farming. This restricted meaning of production grew out of the fact that marketing services were required little if at all in a program of self-sufficing agriculture. People have not come to realize that *productive* really refers to all efforts which contribute to the creation of useful things which people want and will pay for whether they be physical commodities or services.

2. There are five groups of things for which people strive, each known scientifically as a utility. Thus there are utilities of the following kinds: (1) elementary, (2) place, (3) form, (4) time, (5) possession.

3. From the practical point of view utilities each represent the results of different services or groups of services. Whoever contributes necessary services is thereby entitled to the name *producer*. Farmers by creating physical commodities are producers of elementary utility. Middlemen on the other hand by rendering essential services are producers of place, form, time and possession utilities. Stated concretely these middleman services are (1) assembling, (2) grading and standardizing, (3) packaging, (4) processing, (5) transporting, (6) storing, (7) financing, and (8) distributing.

4. Marketing as related to farmers may be defined as the rendering of those essential services which enable the consumer to utilize the products of farms. Abstractly, marketing refers to the creation of utilities; concretely, it means the rendering of services.

5. There are three principal marketing methods. These may be named, (1) regular, (2) integrated, and (3) direct. They refer to the distributing plan or selling scheme by which commodities pass from farms to consumers.

6. Marketing agencies are of three general types. They are known respectively as (1) private, (2) coöperative, and (3) governmental. They refer to the motivating force which selects and operates a method of marketing according to which essential services then are rendered.

7. The marketing system itself provides the machinery for the continuous and dependable rendering of essential services which span the distance and time intervening between farmers and consumers.

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CHAPTER III

ASSEMBLING FARM PRODUCTS

WHEN the farmer leaves his products at the elevator, the creamery, the local store, or elsewhere, he does not realize that the middleman who receives them commences to render the service of assembling. The fact is, however, that this middleman and great numbers of others are obliged to perform this service in some form or another. This is unavoidable because in attempting to handle products during their passage from farmers to consumers or from one middleman to another it is necessary to be dealing either with physical quantities of goods or with definite orders for commodities. The quantity handled by a given middleman may be large because many units of the same article have been brought together or because a small amount of each of many varieties has been concentrated. In a classification of the kinds of assembling there would be no less than three types of concentration. Each type in turn plays a very important rôle in the marketing of farm products.

Assembling Provides Adequate Quantity of Business. — In the first place, assembling is undertaken in order to obtain or concentrate under a single business management a sufficient volume of one type of farm product to make possible economical operation. Naturally this concentration may take place either locally or at some terminal point, depending upon the location of the particular middleman's place of business. The assembling of cream for the manufacture of butter represents concentration of a single product and pro-

vides a clear illustration of the importance of this service. A farmer milking twenty cows of average annual production would have approximately eleven pounds of butterfat to market each day. The cream containing this much butterfat would fill a five-gallon cream can and consequently each day's production would be sufficient either for economical railroad shipment to a central creamery or for hauling to a local plant. This small quantity of cream, however, would be far from adequate to meet the butterfat requirements of a creamery. A daily contribution of only eleven pounds of butterfat would be entirely too little to justify operation of a creamery. At the minimum, a creamery cannot be profitable to its owners and remunerative to its patrons which receives less than 80,000 pounds of butterfat per year. This volume means a daily requirement of about 270 pounds on each of 300 working days. Thus the butterfat from at least 25 farms would be continuously needed to guarantee conditions favorable to economical and profitable operation of a creamery. The middlemen operating local creameries, therefore, find it necessary to concentrate large quantities of butterfat from considerable areas. In doing this they render the service of assembling.

While local creameries are the rule throughout regions where farmers specialize in butterfat production, they are not found over the more extensive sections of the country where farmers milk a few cows as a side-line only. In a region of the latter type, as for example Kansas, farmers average a production of less than 400 pounds of butterfat per year. This means under two pounds a day. At this rate the minimum cream shipping container — a five-gallon cream can — would not be filled in less than five to eight days. To be supplied with 80,000 pounds of butterfat per year a creamery in Kansas would require the continuous patronage of 200 farmers. Experience, however, has shown that

creameries in Kansas manufacturing only 80,000 pounds of butterfat per year have not sufficient raw material for successful operation. The successful concerns there are very large, averaging over 700,000 pounds of butterfat. To obtain such an immense volume requires a system known as centralizing. They gather butterfat from 1,500 or more farmers. Manifestly this cannot be done in the manner by which local creameries assemble their raw material. Farmers in Kansas, because butterfat is produced in very small quantities per farm, find that the distance to creameries varies from 25 to 250 miles. This distance is too great to permit personal delivery to centralizers. In fact many farmers find it not worth their while even to ship their butterfat by express directly to the centralizer. Were it not for the convenience of cream stations a large proportion of farmers in such states as Kansas would cease entirely the production of butterfat for creameries.

The system of assembling butterfat in Kansas and other states where dairying is a side-line on the usual farm is accomplished in two steps. A number of farmers deliver their small quantity of cream — a fraction of a can each — to the cream-station middleman who assembles the product from an average of 25 farmers. A large number of these cream stations in turn regularly ship their purchases to the central creamery or manufacturing plant. Thus the many small contributions from individual farms are assembled into quantities, making transportation by rail an economic possibility. This was not always the case. A system of economical assembling was the outgrowth of costly experience. Before the invention of cream-station assembling, some five hundred local creameries were started but failed in the state.[1] As a result farmers no longer had remunerative outlets for butterfat and were obliged to cease production of milk

[1] Kansas Exp. Sta. Bul. 216.

beyond their farm needs. With the establishment of cream stations to render an intermediate assembling service, farmers again resorted to milking, and profitable centralized creameries flourished where the small inefficient local concerns had been starved out by inadequate supplies of raw material for economical operation. The service of assembling, undeveloped by the local creamery but invented and perfected by the centralizer, was the secret of creamery success as well as the basis for providing the farmer with markets.

Assembling is Essential in All Marketing. — Assembling is just as essential to the marketing of every variety of farm product and for every other middleman as it is for butterfat marketing and for creamery operators. To fill a car with live stock, potatoes, wheat, or other products at any given time generally requires products from a number of farms, and these are brought together more cheaply and in less time when a group of farmers depends upon a third party to specialize in doing this work for them. In this way a given group of farmers is able to save time for each member by making it unnecessary for each to duplicate the efforts of others. By this sort of division of labor where a third party is induced to receive products, load cars and ship them, savings are made which outweigh the costs many times. That farmers recognize this principle in the extensive development of live-stock shipping associations in which a manager arranges to receive and load stock is well known. The principle does not seem so clear to them, however, when instead of this service being rendered by a coöperatively employed middleman, known locally as the manager of the shipping association, it is rendered by a private local buyer. Both parties perform the identical service of assembling in order to concentrate sufficient volume for economical freight shipment. The only real point of difference lies in the motives which lead to patronizing one or the other — the private or the co

operative marketing agency. This leads to a different subject, however, which is fully treated in Chapter XV.

Why Assembling is a Middleman Service. — As a general rule farmers, regardless of what they may be producing, turn out less of a given commodity whether it be grain, live stock, dairy products, poultry, eggs or any other product than is required for economical operation of a middleman concern. It is for this reason, if for no others, that farmers find it unwise to attempt to do their own marketing individually or in other words to try to be middlemen as well as farmers. There are, of course, numerous exceptions. The large cattle feeder actually does load his cattle and ship them directly to the market. In doing this he renders for himself the service of assembling to gain the advantage of car load freight shipment. The large cattle feeder thus performs for himself a service which the small feeder is only too glad to receive, either by selling outright to a local live-stock buyer or by shipping through a coöperative live-stock shipping association. Under existing conditions it is not surprising, therefore, that farmers generally leave the performance of grading and standardizing, of processing, of storing and of distributing farm products primarily to middlemen. They do so because it is to their advantage to practice a division of labor. On the other hand, this does not signify that farmers should patronize any special one of the three marketing agencies. It merely means that they are able to make more money by having middlemen render assembling and other marketing services rather than by performing these services themselves. Just which one or how many of the three marketing agencies — private, coöperative, or governmental — the farmer should patronize is a matter for judgment. The decision hinges upon problems which are treated at length in Chapters XIV and XV.

Assembling Provides Adequate Variety. — A second important kind of assembling is undertaken in order to obtain

or concentrate under a single business management a sufficient variety of products to warrant economical operation. It has been noted that on the farmer's end of the marketing chain usually one kind of product is concentrated either for shipment, for grading, for processing or for storing. At the consumer's end of the line, on the contrary, precisely the reverse is true. Consumers do not purchase immense quantities of a single product. For example, they do not buy either sugar, potatoes, or meats to the exclusion of all the other products. On the other hand their needs lead them to purchase small quantities each of a large variety of products. A moment's thought regarding the wide variety of items of food and of clothing bought by the usual family will sufficiently impress the reader with the great importance of variety to the consumer. It is this fact — a condition directly opposite to the condition at the farmer's end of the line — which makes necessary so much work in distributing.

The various middlemen who are trying to provide consumers with the right amount of every variety of products which they desire must have the most direct and economical connections with other middlemen, who in contrast have specialized in assembling one kind of product only. Accordingly, marketing connections are necessary between middlemen with a single product, or at best a few products only, and middlemen who handle from hundreds to thousands of varieties of products. When it is remembered that under a highly commercialized system of farming certain products are grown in California, others in New York, others in Iowa, and still others in foreign countries, and that the consumer at a given point insists on having the products from each of these numerous specialized producing regions, it is no wonder that we have a complex marketing system. Between middlemen at country points, who assemble products from farmers, and middlemen at city points, who distribute to consumers, mar-

keting concerns are found performing every conceivable kind of marketing service indiscriminately. In actual practice, therefore, these cross connections make marketing seem exceedingly confusing. As a matter of fact, the principles underlying all of these apparently complex connections are relatively simple. In many ways marketing resembles an immense spider-web. The middleman, who assembles a large volume of one product only, stands at the center of the web. Radiating from him, like the spider-web about the spider, are the numerous indirect connections through brokers, wholesale receivers, jobbers, retailers, and others resulting ultimately in sales to a sufficient number of middlemen or of consumers to take the entire volume of products which he has assembled. An example will serve to illustrate this point.

Let the reader think of himself as a consumer selecting any one of the hundreds of products on the shelves before him in a retail store in New Orleans. Having chosen a can of fancy peas, let this consumer then ponder upon the marketing system which has assembled peas from farms in Wisconsin and placed this particular tin upon the shelf before him. He might at first imagine that the retailer took a trip to Wisconsin and bought fifty cases from a pea-canning factory. The cost of such a trip, however, and the expense of less-than-carload freight rates on such a small purchase would undoubtedly make this retailer's price on peas prohibitive. As a matter of fact, to avoid the necessity of asking excessively high prices for peas, the retailer has purchased his supply from some one who specializes in bringing peas to New Orleans at less expense. That he will buy from some other middleman who has connections with pea-canning factories, rather than undertake to establish his own connections with pea canneries, is the reason why there are wholesale distributors. The middlemen who specialize in retailing a variety of products need such a small quantity of any one article that

it is impossible for them to meet the expense of rendering all phases of the service of assembling. Other middlemen therefore specialize in catering to the variety of needs of a large number of retailers. Thus the wholesale distributor, exemplified by such concerns as the wholesale grocer, wholesale fruit concerns, and other large organizations, render to retailers a portion of the service of assembling variety, a service which they themselves are unable economically to perform.

There are many kinds and sizes of wholesale distributors, however, and not all of them by any means have direct connections with pea-canning establishments. Those who either do not operate pea-canning factories or do not maintain direct connections with independent canneries are confronted with the problem of buying their supply indirectly. For example, a small wholesaler operating in the city of New Orleans, in order to furnish his retail store customers with canned peas, might take a trip to Wisconsin to obtain a small supply of several hundred cases. The cost of the trip and of the freight on such a small wholesale order would come to a high figure per case. In competition with larger wholesale distributors the small distributor would be at a decided disadvantage. To handle peas profitably he must obtain his supply with less expenditure for buying. The cost of traveling and of high freight rates must be eliminated. Large numbers of similar small wholesale distributors require a great variety of products which are obtainable only by connections with a large number of distant middlemen, each specializing on one article only. This affords the opportunity for the broker to furnish the connecting link by which many wholesalers are enabled to assemble economically the wide variety of products needed by their clientele of retail stores. At first thought these rather numerous middlemen may seem unnecessary to the consumer who has just purchased his can of peas. But for any one who has given serious consideration

to the characteristics of farm production, to the fact that raw farm products must be radically changed in form before consumers can use them, and finally to the fact that extremely long distances intervene between farms and consuming centers, the wonder is that marketing is accomplished as simply and as satisfactorily as it is.[1] New ways of doing things are being tried out continuously by individuals who think that they have found less expensive means of rendering essential marketing services. It takes time for the efficient methods of marketing and the efficient agencies to prove their merits by occupying the whole field. Consequently a glance at the marketing system at any one time is bound to show outworn methods in use as well as to expose inefficient middlemen. Progress is being made constantly so that certain undesirable conditions of to-day shall have been eliminated by to-morrow. On the other hand, there is little doubt that some of the approved methods and concerns of the present will become unjustifiable in the future. At no time is it likely therefore that marketing can become wholly satisfactory in all respects. The best to be hoped for is that the inefficient may be successively displaced by methods and concerns that will efficiently render services to meet the needs of both farmers and consumers.

Assembling Provides Adequate Orders. — The third principal kind of assembling is undertaken to obtain or concentrate under a single business management sufficient *orders* for goods to make possible economical operation. The middlemen who specialize in this work occupy a field of usefulness between two other kinds of middlemen. They are in reality connecting links between the assemblers of large volumes of a single product and the assemblers of small quantities each

[1] This does not mean, however, that there is not abundant room for improvement in the present system of marketing. For a treatment of this phase ot the question the reader is referred to Chapters XVII and XVIII.

of a very great variety of products. Quite commonly the factories canning the various vegetables and fruits sell their output through brokers to middlemen scattered indiscriminately over the country. The goods are neither owned nor received by the brokers. On the contrary they are shipped from the point of production directly to some wholesale distributor. Thus through the services of the broker one middleman disposes of his product while another obtains his needed supply. By specializing in a business of concentrating orders for buying and for selling products, the broker saves for his customers much of the time and expense of travel and of selecting goods which they otherwise would be obliged to meet. Due to these savings many middlemen find it economical as well as more convenient to patronize brokers. In doing so they cause brokerage, as a step in assembling, to play a vital part in the marketing system.

Assembling Saves Freight Expense. — The justification for rendering any marketing service, in the last analysis, must rest upon economic expediency and desirability. Every service which results in lower relative cost per unit of product handled earns a place in the marketing system. Services which enable greater facility and certainty in the handling of products, though the cost be the same or higher than before, are frequently found essential. They meet the convenience of farmers or of consumers. If these services were not rendered production would be on a smaller scale, because less convenient marketing practices would take more of the farmer's time and thus curtail the extent of farm operations. Similarly many of the more expensive phases of retail distribution, although seemingly inexcusable in themselves, are essential if consumers are to make use of the products. Without such practices the consumer would have to curtail productive efforts in other lines in order to perform for himself these marketing services. Naturally, the conveniences which

various marketing practices provide for both farmers and consumers are difficult of statistical measurement. To the extent, however, that they reduce costs or earn profits, their merits may be proved by tangible evidence.

The objects for which the service of assembling is rendered may be classified into two groups. In the first group assembling is essential in order to economize operating expenses. This applies to concerns regardless of whether they render one or more of the marketing services.

Farmers everywhere are familiar with the fact that a vehicle of transport is constructed for some normal capacity or load. Obviously it costs more in terms of a wagon, a team, and a man's wages per bushel of wheat when five bushels only are hauled to town than when a full capacity of fifty bushels are hauled. The farmer values his time and equipment sufficiently to endeavor to work at full capacity. For the same reason the various public carriers charge rates based upon capacity loads. Freight cars loaded at half capacity mean an economic loss to some one. If rates were based on weight or value regardless of car capacity the railroad which hauled half-filled cars would fall short of the amount estimated as necessary to meet expenses. To avoid this the railroad is obliged to charge rates which assume capacity loading of cars. For those who are unable to ship by car lot the railroad provides less-than-car-lot rates. These obviously must be higher than the car-lot rates in order to cover the loss to the railroad caused by the hauling of cars loaded to less than capacity and to meet the costs of additional services for loading and handling this class of freight. Assembling enables the individual or concern, rendering this service, to save the difference between car-lot rates and less-than-car-lot rates. That this represents a considerable saving is indicated by figures in Table III, giving comparative freight rates from a local shipping point to a large terminal market. Savings in

this example vary from one fifth to more than two thirds of the rates for less-than-car-lot freight. Certainly savings of this size give strong incentive to assemble sufficient volume to ship by car lot as far as possible.

TABLE III. — EXAMPLE OF SAVINGS MADE THROUGH CAR-LOT VS. LESS-THAN-CAR-LOT SHIPPING

PRODUCTS	CAR-LOT FREIGHT RATE PER 100 LBS.	LESS-THAN-CAR-LOT FREIGHT RATE PER 100 LBS.	DIFFERENCE BETWEEN CAR-LOT AND LESS-THAN-CAR-LOT RATES	PER CENT SAVING MADE BY SHIPPING IN CAR-LOTS INSTEAD OF LESS-THAN-CAR-LOTS	MINIMUM POUNDS PER CAR TO OBTAIN CAR-LOT RATES
	Cents	Cents	Cents		
Cattle	15	48	33	68.7	22,000
Beef and dressed poultry	15	48	33	68.7	21,000
Hay	11½	32	20½	64.0	20,000
Hogs	19	48	29	60.3	17,000
Sheep	19	48	29	60.3	12,000
Poultry, live . . .	42	96	54	56.3	21,000
Wool	22	42	20	47.6	24,000
Tobacco	22	42	20	47.6	20,000
Wheat and flour . .	14	22	8	36.3	60,000
Butter, cheese and eggs	32	42	10	23.8	20,000

The fact that farmers, in devoting their time exclusively to farm operations, have not themselves been able to assemble regularly and dependably their various products for car-lot shipment, has been one of the main reasons why middlemen have established elevators and cream stations, why they have served as cotton buyers, live-stock buyers, wool buyers, and so on through the entire list of farm products. Farmers have patronized these middlemen whether they were private concerns or coöperative because it was fully as cheap or even cheaper than individually to go to the trouble of assembling the products, loading cars and shipping the output of each farm separately. The recent movement by farmers to establish coöperative organizations to render the services of as-

sembling grain at farmers' elevators, cream at farmers' cream stations, cotton at farmers' warehouses, and for marketing various other products, has not in any sense been a move to eliminate middlemen services. The manager who is employed by a board of directors of a coöperative association to conduct the assembling of farm products by means of farmer-owned facilities is just as truly a middleman as the manager of a private corporation. The difference between them lies not in the service performed but in the distribution of such profits as may be earned by each. That the middleman must rob either consumers or farmers in order to obtain a margin which covers his expenses and gives a reasonable profit is a mistaken idea. On the contrary, it is found that one middleman, by specializing to render the service of assembling, is able to save a great deal of time for each of a considerable number of farmers. By patronizing middlemen, time is saved for each farmer, who is then able to devote more effort either to farming a larger acreage of land or to cultivating that which he has more intensively. As a result of this division of labor the increased production by each farmer more than offsets the amount which is retained as profits by the private middleman. Surely if private middlemen assume the risks of marketing and furnish the facilities and labor for handling products, they are entitled to reward in profits which in no sense reduces the farmers' former incomes. It must be equally clear to middlemen that if farmers desire to assume the risks of marketing and to that end provide facilities and labor for handling their own products, they are entitled to be in the marketing field as coöperative middlemen fully as much as are private middlemen. There is no legitimate reason why farmers should not try to hire middlemen coöperatively. In fact they are perfectly justified in doing so, especially when their hired middlemen are able to cover expenses and make for farmers substantial profits. Regardless of whether pri-

vate or coöperative middlemen render the service of assembling, it is obvious that the service itself is fundamental and must be performed.

Assembling Reduces Operating Costs. — The welfare of all parties involved by marketing is promoted when services are rendered at minimum costs. In trying constantly to reduce relative costs, marketing companies invariably meet with the problem of handling that quantity of raw materials which will result in the most economical operation. Stated differently, it is important that the management of a marketing enterprise should know whether the costs will be lowered by handling a greater quantity of products or whether they will be increased by so doing. Best results accrue to those managers who see to it that their undertaking is neither undersupplied nor oversupplied with products. As a general rule, to which there are exceptions of course, the relative costs of operating a marketing concern per unit of product become smaller as the quantity handled increases. Middlemen therefore properly endeavor to build up increasing volumes of business, and in doing so necessarily perform the service of assembling.

It is this relationship between increasing size of business and decreasing costs, and hence greater ability to pay high prices for farm products at the same time when stimulating profits are made, which emphasizes the importance of assembling. Too frequently there is opposition to the idea of large size of business on the part of marketing enterprises. The uninformed consumer or farmer feels that size gives power to depress prices to producers and to increase prices to consumers. The usual facts are that a large volume of business enables one marketing management to keep its costs low enough to make handsome profits while other managements, on account of their small volumes of business and consequent excessive costs, actually lose money, even though they

charge the same price as their large and efficient competitors. In other words, out of each dollar paid by the consumer for the same grade and quantity of product, one middleman is able to meet all expenses and have a profit left, while his competitors are not even able to meet all of their expenses. In such cases those making profits did not do so by charging higher prices or by giving short weights, as is often supposed. On the contrary, the management in these cases planned and toiled diligently to assemble that quantity of products which would keep the workers, the warehouse and all facilities operating economically at full capacity. The middlemen who lost money did so because of inefficiency. They were inefficient because they failed to secure the requisite volume of products to keep their concerns operating to the best advantage. It should be realized that size does not necessarily carry with it the abuse of power.

This fundamental principle — namely that a marketing enterprise may remain too small or may grow too large to be operated at minimum costs per unit of product handled, applies to all middlemen alike. It affects the cost of rendering each and all of the marketing services regardless of the product handled. It places the responsibility upon every middleman if he is to receive profits, of making his business assume the right size, and of managing and operating it efficiently. It must be emphasized, therefore, that among competitive marketing enterprises — and most marketing concerns are keenly competitive — profits are not stolen from consumers or farmers. On the contrary, part of what necessarily goes as expenses for a middleman with too small a business becomes profits for a middleman with a larger business. The incentive to get profits makes numerous middlemen endeavor to obtain a large volume of business so that expenses may be reduced. Obviously, when there is a limit to the quantity of products in existence there cannot be both

numerous marketing concerns and large volumes of business for all who might like to be middlemen.

Every consumer and farmer is personally acquainted with one or more small middlemen. As a result of such personal contacts it is generally known that the small man is not making any considerable amount of profit. Unfortunately it is not realized that the large, unknown competitive middleman who makes profits, charges the same prices for similar quality of products as the small middleman. Such competitive profits, contrary to public belief, are created by superior efficiency. The small competitive middleman has just the same opportunity to make profits as does the large competitive middleman, but fails to earn them because of inability to reduce his high costs. What the large middleman is making and saving as profits the little man pays out in heavier relative expenses. The difference between the two is in large measure due to the consequences of different sizes of business. What the larger concern makes as profit comes largely as a result of successfully developed service of assembling.

A few illustrations will further emphasize the relation of low relative costs to profits and to size of business. Consider for example the service of grading and standardizing eggs. The farmers of the United States maintain an average of 53 fowls per farm, valued at less than twenty-eight dollars. From them a production of a dozen eggs per day would be high indeed. Owing to seasonal variation in laying, the usual farmer, after reserving part of the production for home use, usually has not more than one to ten dozen eggs to market during any week. The local retailer, to whom most of these eggs are delivered in trade for groceries, receives a fluctuating supply which in the aggregate is small. In fact it is a volume of business too small to pay him for an outfit and the labor necessary for handling eggs. As a consequence his egg pur-

chases are sold either to consumers or to other middlemen upon whom falls the task of grading. Small middlemen do not grade because their small volume would necessitate excessive costs of handling and repacking. Large egg assemblers and shippers, on the other hand, are able to candle cheaply enough to pay both expenses and profit. Furthermore, as the number of eggs candled increases, costs of grading become less and the incentive for middlemen to render this service becomes greater. All that has been said of grading applies with equal force to packaging and the other marketing services.

Assembling Reduces Elevator Costs. — Further evidence of the relation of the quantity of product handled to costs of operation is shown by investigation of grain elevators. It was found by the Minnesota Agricultural Experiment Station that as the number of bushels of grain handled increased, the cost of operation per bushel regularly declined. This tendency is brought out by the facts in the following summary:

RELATIVE COSTS OF OPERATING ELEVATORS BY SIZES[1]

Grain per Elevator, Bushels	Operating Cost per Bushels, Cents
50,000 and under 100,000	2.5
100,000 and under 150,000	1.9
150,000 and under 200,000	1.5
200,000 and under 300,000	1.3
300,000 and under 400,000	1.15

In practice these data mean that of two elevators paying farmers identical prices for grain and selling for similar prices, the one having a business of 300,000 bushels would cover its cost of 1.15 cents per bushel and make a profit of 1.35 cents, while its competitor with less than 100,000 bushels of grain

[1] The University of Minnesota Agric. Exp. Sta. Bul. 152, p. 10.

would only be able to meet expenses amounting to 2.5 cents per bushel. These facts further emphasize that a profit can be made by large concerns without paying farmers any less or charging consumers any more than are charged by small concerns. Certainly, if farmers desire more for their products, little can be gained by knocking large business merely because of its size and boosting for small enterprises because they are known to make small profits. The increased price desired by farmers, if it comes at all, cannot be gotten except through marketing organizations which are able to operate at less expense because they have assembled large volumes of business. Distinction must be made between large enterprises which are truly competitive in their results and those which are monopolistic. If consumers hope for lower prices, their desire also can be realized only through the operation of large scale undertakings, because these alone are able to reduce costs. It should be emphasized that assembling is one of the principal marketing services which makes such cost reduction possible among competitive middlemen.

Assembling Reduces Cost of Making Butter. — Again the relation of assembling to reduction of operating costs may be shown by expenses of creameries. It was found by the Iowa State Dairy Commission in an extended study of creamery costs in that state that failures and successes were quite generally attributable to size. Of itself mere size can do nothing, but size does make possible and justifiable the employment of expert management. In fact a marketing concern would not become large without efficient management. In this limited sense, then, volume of business means much. A capable management with a small quantity of products would necessarily have high costs and low profits. To reduce cost it would require enlarged volume. With remarkable clearness the following Iowa creamery figures illustrate the economic value of assembling.

Comparative Costs of Making Butter in Different-sized Creameries [1]

Butter per Creamery, Pounds	Operating Cost per Pound, Cents	Profits per Pound for Larger Creameries when Smallest only Pays Expenses, Cents
40,000	4.00	None
50,000	3.40	.60
60,000	3.00	1.00
70,000	2.88	1.12
80,000	2.66	1.34
90,000	2.00	2.00
150,000	1.85	2.15
175,000	1.64	2.36
200,000	1.44	2.54

These facts emphasize that frequently the profits of one concern are derived from that which another concern expends in excessive costs. As long as the larger marketing enterprises are able to reap advantages similar to the differences between these creamery cost figures, the motive and tendency for rendering the service of assembling will be irresistible.

Under vigorously competitive conditions part of the advantage which large concerns acquire by virtue of low costs is shared with farmers in order to induce them to give their patronage regularly. On the other hand the small concern — small because it fails to render fully enough the service of assembling — has no fund to share with farmers in the form of higher prices because its expenses consume the entire margin obtained per unit of product handled. Not until relative costs per unit of product handled are reduced is it possible for small marketing enterprises to pay more to farmers. For them to be able to pay more requires reduction in cost, which they for the most part are unable to accomplish until they first render more fully the service of assembling. Unfortunately, farmers, consumers, and the general public do not

[1] Data from 18th Annual Report of The Iowa State Dairy Commissioner, pp. 33-34.

realize that instead of large competitive enterprises being the cause of the price level of any given date it is the small undertakings operating at high cost which are largely responsible for the price level.

Assembling Reduces Retail Costs. — The relation of assembling to operating costs in retail stores may serve to further emphasize this principle. Retailers render important phases of the service of distributing. They specialize in dissembling products and in placing them in the hands of consumers. To handle adequate volume of products they are obliged to assemble small quantities of each of a very great variety of goods. While assembling is not their main purpose, its important influence upon cost is strikingly shown by figures obtained by the Minnesota Agricultural Experiment Station. Briefly the facts are as follows:

STORE COSTS OF OPERATING DECLINE AS SIZE OF BUSINESS INCREASES [1]

SALES PER STORE, DOLLARS	ACTUAL AVERAGE GROSS SALES, DOLLARS	PER CENT OF GROSS SALES REQUIRED TO COVER EXPENSES	PER CENT OF GROSS SALES REMAINING AS NET PROFIT
Under 20,000	11,630	13.4	3.4
20,000 and under 40,000 . .	30,510	12.6	4.4
40,000 and under 60,000 . .	48,676	12.1	5.2
60,000 and over	71,787	11.4	5.4

These figures indicate consistently that with increasing size of business retail stores operate at lower and lower costs accompanied by larger net returns. Regardless of which of the essential marketing services a given middleman may render, this important relationship between volume of business and cost of operation impels him to render the service of assembling. In this respect both the private middleman and the coöperative middleman are alike. To keep costs low they must assemble sufficient volume. Reduced costs in time

[1] The University of Minnesota Agric. Exp Sta. Bul. 171, p. 14.

mean better profits. The farmer of course desires this increased profit in the form of higher prices. That better prices will be paid, however, requires that duplication in rendering marketing services be eliminated to the point where each middleman handles the maximum volume of product required to make possible minimum operating cost per unit. This, however, involves the whole subject of consolidation of marketing business units. It represents another phase of the inquiry treated in Chapters XIV and XV.

SUMMARY

1. Assembling is essential because without it a company or middleman would have no products to handle and hence no business to transact. To conduct a marketing enterprise with the greatest efficiency requires that neither too little nor too much business is assembled within a single organization. A happy medium or proper balance between over or under size is the ideal. To realize this object requires judicious development of this service of assembling.

2. Assembling is of three principal kinds. These are (1) assembling to secure adequate volume of a single commodity or of a few similar commodities, for example a grain elevator; (2) assembling to secure adequate variety, for example a retail grocer; and (3) assembling to secure adequate orders for buying or selling commodities, for example a brokerage concern or department of sales in a large enterprise.

3. When that amount of commodities has been assembled which keeps a given business operating at its optimum capacity expenses are thereby kept at the minimum so that maximum profits or savings may be earned. Keen business men appreciate this relationship between size of business and operation at full capacity and rely upon the service of assembling to bring them the right volume of raw materials.

4. The great value of assembling a large enough volume of business to reduce expenses to the minimum and thereby make profits may be illustrated by any kind of business. For example, shipping by car load saves from one fifth to two thirds of the freight expense of shipping in less than car lots. Handling wheat in elevators having a business of 400,000 bushels costs less than half as much as in elevators handling 100,000 bushels or less. Butter may be manufactured in a creamery turning out 200,000 pounds annually at less than half of the expense of making it in a creamery annually turning out 60,000 pounds or less. Similarly in retailing the same work may be done at less expense in larger stores than in the smaller stores.

5. Assembling, if developed under the most favorable conditions, would result in the rendering of middleman services in units which were neither too large nor too small. Each would be an economic unit. Under present conditions all middleman concerns are not economic units because they are too numerous, so that only a few may assemble that volume which permits or justifies conditions of highest efficiency in operation.

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CHAPTER IV

GRADING AND STANDARDIZING FARM PRODUCTS

CONSUMERS have a great variety of definite wants. Because of an intense desire for the best of everything these needs and wants create a strong demand for certain products while there is little or no demand for other articles. To farmers, whose occupation it is to produce articles of food and other raw materials that will satisfy consumers' needs, it is economically desirable not only to raise the right kind and quality of crops and live stock, but to so arrange or classify the resulting products that buyers may easily recognize them as the articles for which they are in search. Ordinarily, the extent to which consumers prefer the best qualities of a large variety of products is not realized nor is it appreciated that farmers in attempting to provide the best grades unavoidably bring into existence immense quantities of products of lower quality than that for which consumers will pay fancy prices.

The service of sorting products into groups of uniform kind, quality, and size is known as grading. Standardization establishes the permanency of these grades; that is, it means that the given grade shall contain the same quality of article each day, week, month or year. Standardization makes it possible for people to learn what a given grade is and enables them to gain confidence that in selecting a particular grade of article the same quality may be obtained in subsequent purchases. To consumers this service facilitates selecting and purchasing and enables other savings in consequence of which demand is increased. For middlemen it lessens the volume of waste product to be handled and thereby reduces

marketing cost. Finally the farmer benefits because increased demand gives him a larger market, which combined with the lower costs of marketing on the part of middlemen, rewards him with better prices or larger sales, either one of which should mean greater return from the same farm.

Grading is Economical for Consumer. — It should not be forgotten that the consumer is in reality a producer in some line of work. Specialization by the consumer, whether it be in household duties, in mines, factories, or on farms, leaves very little time to be spent in doing work either on a small scale or without adequate facilities, when the same results can be accomplished more economically elsewhere. In buying ungraded products the consumer is obliged not only to accept many inferior commodities, representing waste, but he must himself perform the grading service. Take potatoes, for example. The purchaser of unsorted potatoes finds that many are extremely small while others are both excessively large and hollow. Frequently tubers are broken or bruised, sunburned or frostbitten. Many may be very irregular in shape. As a result of these extreme variations in shape, size and quality, there is greater loss of food value due to necessary paring of rough surfaces or to spoiled portions which must be removed preparatory to cooking, than is the case with uniform, graded tubers. Besides it takes more time to salvage edible parts from small, odd shaped, and damaged potatoes than to pare properly graded tubers.

The effect of these factors upon consumers of potatoes is a demand for graded tubers backed by a willingness to pay more for the graded and standardized product. Consumers can do this because of saving in time and money made thereby, in spite of the fact that the price per bushel may be higher than for ungraded tubers. What has been said of potatoes applies in greater or lesser degree to every farm product.

In purchasing products with which they are unfamiliar, consumers are cautious. They must either see the article at the retail store or purchase it subject to approval on delivery. So it is with all articles whose quality is unknown to the buyer. Where inspection by consumers must precede an order, the time required to go to the retail store becomes a serious hindrance to frequency of such purchases and hence a limitation to consumption and demand. To the extent that retailers deliver goods for approval of purchasers and take them back when unsatisfactory, the costs of marketing are higher than would otherwise be necessary. This acts as a deterrent to consumption. The service of grading and standardizing teaches the consumer by experience that certain foods and articles may be satisfactorily purchased on the basis of descriptions, trade names or brands.

In general it may be concluded, therefore, that the service of grading and standardizing benefits consumers by enabling them to secure just what they want more easily and economically than is the case when products come to them ungraded.

Grading Reduces Cost of Marketing. — The service of grading products economizes space throughout the marketing system. Particularly is this the case with transporting and storing. In some lines of production, especially relatively nonperishable products, most or all of the quantity harvested by farmers is ready for immediate use either by processors or by consumers. With perishable goods, on the other hand, a high proportion of the output is unfit for use as food and therefore should never go beyond the local shipping point. Again, take for example, potatoes. It has been found that "quality and price are the two primary considerations which count with the buyer. It is easier to sell the best potatoes at the top of the market than it is to sell inferior grades at a price several cents lower. The freight rate on dirt and small and unsound potatoes is the same as on fine stock.

The dealers' margin must be as great, or greater, because of greater risk and labor in handling the low grade produce, hence the economy of sorting before shipping. As much as a ton of dirt and culls is sometimes found in a car on the Chicago 'team-tracks' after the wholesale merchant has sacked all he is willing to accept. The total car would have sold for more had these potatoes and the dirt been left on the farm or taken out at the warehouse."[1] The same space in the freight car might just as well have been filled with potatoes 100 per cent salable to middlemen and consumers as to have contained large quantities of culls and dirt which resulted in wasted effort in handling and loss of freight charges upon two to ten per cent of the car load.

The same principle applies to all farm products in varying degrees according to their characteristics. The United States Bureau of Markets found for example that the receipts of apples at Chicago during a period of almost three months, between September 15 and December 5, 1914, contained over 15 per cent of apples so inferior in quality that they could not have been sold at all were it not for being mixed with other apples of better grade which consumers wanted.[2] These 410 car loads of apples out of 2600 cars represented not only a waste in themselves, but they seriously depressed the prices obtainable for the good apples mixed with them. Grading in this case would have saved the costs of buying barrels for 160 car loads of apples, of packing this large quantity of fruit, of loading 410 cars with barreled and bulk apples, and of paying freight thereon to market. Furthermore these inferior apples could probably have been utilized profitably either as livestock feed or for cider-making purposes at the point of shipment rather than have become a total loss on the distant terminal market. The cost of handling and of paying freight

[1] University of Wisconsin Agric. Exp. Sta. Bul. 256, p. 13.
[2] Washington State Office of Farm Markets, Circular 19, p. 17.

upon inferior products unavoidably constitutes a cause for wider middlemen margins than would otherwise be necessary. Either the farmer or the consumer or both must bear the burden of extra costs caused by failure to grade and standardize products at the point where this service can be rendered most economically.

The economic importance of the service of grading may be further emphasized by facts concerning an important storage product. Investigations have shown that eggs received from farmers by local storekeepers are by no means fit either for transporting or for storage without first being sorted. According to market standards, eggs received at country points during the representative month of October have graded 25 per cent "firsts," 60 per cent "seconds," 5 per cent "cracked," and 4 per cent "rotten" or otherwise ruined.[1] In such cases a tremendous loss of freight, handling and storage costs would result were it not for the service of grading. Furthermore, when eggs reach the terminal points where storage facilities are located, regrading is essential in order to further economize storage space and reduce costs. The saving accomplished in this way is suggested by the fact that out of more than a quarter of a million dozen eggs received in New York during one year, less than two thirds, 64.81 per cent, graded as "first." The remaining third of the eggs were unfit for economical storage, 12.58 per cent being graded "dirty," 10.15 per cent as No. 2, 8.98 per cent cracked and 3.48 per cent rotten.[2] It is obvious that the service of grading saves not only the space required to transport this high proportion of inferior eggs but also the expense involved in storing and subsequent handling. It also makes possible a program of salvaging low-grade eggs by means of desiccation or by other immediate uses which prevent total losses.

All that has been said of eggs applies with equal force to

[1] U. S. D. A. Yearbook, 1910, p. 467.

[2] *Ibid.*, p. 470.

butter and various other storage products. Butter is a particularly glaring example of the waste caused by failure to grade. Investigation has shown that failure to grade farm butter resulted in a loss of 10 per cent to the local middlemen. Such losses were occasioned by the fact that 20 per cent of farm butter received by retail stores was paid for at the rate of 27.1 cents per pound although unfit for human consumption until renovated and reworked.[1] The renovating concerns paid 20 cents per pound for this inferior product for which storekeepers had paid 27.1 cents. Obviously no middleman can long remain in business unless losses of this sort are made up either by charging more for what is sold or by depressing the price of good butter purchased. Failure to grade products makes necessary wider margins than otherwise would suffice and unavoidably places the premium on low-grade products, thus penalizing those who attempt to produce high quality.

Grading Makes Possible Adequate Financing. — All persons or companies specializing in the performance of marketing services require financing in one form or another. Obviously those who lend or otherwise provide money for such uses are interested in having their funds utilized by concerns whose ability to repay both principal and interest is assured. In marketing enterprises repayment is directly influenced by the speed and ease of keeping products in movement. In other words the company which continuously receives and sells products, if efficiently managed, can meet all credit stipulations on time. But not all marketing concerns are able to accomplish this purpose. Some of the principal reasons for being unable to market products successfully lie in the fact that various concerns do not make products available in the way in which people want them or else they are trying to sell products which people do not want at all.

[1] Kansas Agric. Exp. Sta. Bul. 216, pp. 21–25.

To be able continuously to buy and sell requires that a marketing concern merchandise products in a manner which meets the desires of customers. Failure to do so results in the piling up of goods in company warehouses. This in turn stops income which is required to pay loans on time, and as a result makes it difficult for such companies to obtain adequate financing. Examination of the daily transactions on markets shows that there is almost always a demand for the better grades of commodities when frequently no demand exists for inferior products. The secret of successfully moving products at all times, therefore, lies in handling commodities for which demand exists regularly. Grading enables the middleman to select and so arrange or classify goods that they will be constantly in demand. Continuity of business operations made possible by stabilized demand, gives enviable opportunities for securing adequate financing at minimum rates.

Graded Products are the Basis of Warehouse Receipts. — Frequently it happens that most of a middleman's security lies in the products owned by him or by the company he represents. In accepting warehouse receipts as a basis of extending credit, banks and other money lenders must be guided by the value of the farm products represented. Ungraded products are difficult to evaluate. They represent bulk but not value. Not until goods are graded and standardized is it safe for credit institutions to accept warehouse receipts as a basis of loans. These institutions do not care for the goods themselves. Their first desire is purely to obtain assurance that the goods for which they hold a warehouse receipt as security are readily salable by the marketing enterprise as a safety measure in event of foreclosure. It is only good business for the lender to know immediately that all goods securing loans could be converted into cash. Without grading, it is difficult if not impossible to establish these two essential points. Ungraded potatoes, for example, may

be worth $1.50 or they may be worthless. Inspection alone can establish the point. Credit institutions, however, do not make such inspections as a rule. It is neither economical nor practical for them to do so. The service of grading and standardizing insures that this will be done. Moreover, it makes possible the issuance of reliable warehouse receipts which establish the kind, quantity, and quality of products upon which loans are to be made. In rendering this service, grading facilitates economical and adequate financing which in turn increases the efficiency of marketing enterprises and reduces their costs.

Grading and Standardizing Reduce Selling Costs. — The marketing of farm products requires at least one transfer in ownership. This means that a sale has to be effected. The commodity, to give satisfaction to a consumer, must be owned by that consumer. Usually, however, more than one transfer of ownership is necessary because the tendency of any one middleman is to specialize in rendering only a few of the essential marketing services. These transfers of ownership from farmers to middlemen and finally to consumers require that sales be consummated.

When one examines the basis of sales it is found that buyers and sellers reach a bargain only after mutually agreeing upon the kind, quantity, and quality of the products under consideration. Costs of selling or of buying are found to be high or low, depending upon various factors, such as distance between buyer and seller, perishability of the product, distance between buyer and the product to be bought, quality of the article, and the guarantee of uniform grade throughout. If the characteristics of a product — that is, the size, shape, quality and other features — differ extremely at different times or if a given lot contains products of every description, it is impossible for a buyer to know their worth until after inspection has been made. All buyers purchase prod-

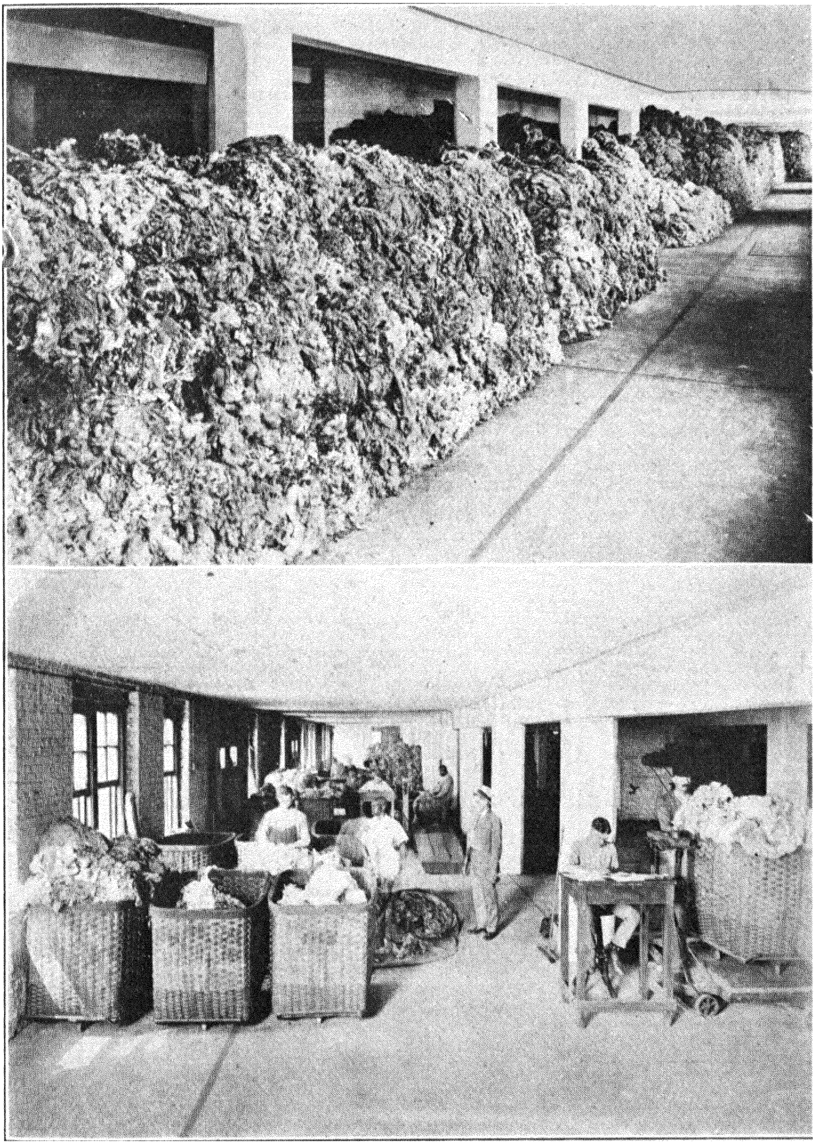

FIG. 7.—WOOL GRADING PREPARATORY TO STORAGE

Wool, cotton and other relatively nonperishable products are graded before storing from periods of surplus supply on markets until they are needed by manufacturers to be converted into finished commodities. *Lower picture*—Sorting preparatory to placing in storage. *Upper picture*—Wool in storage.

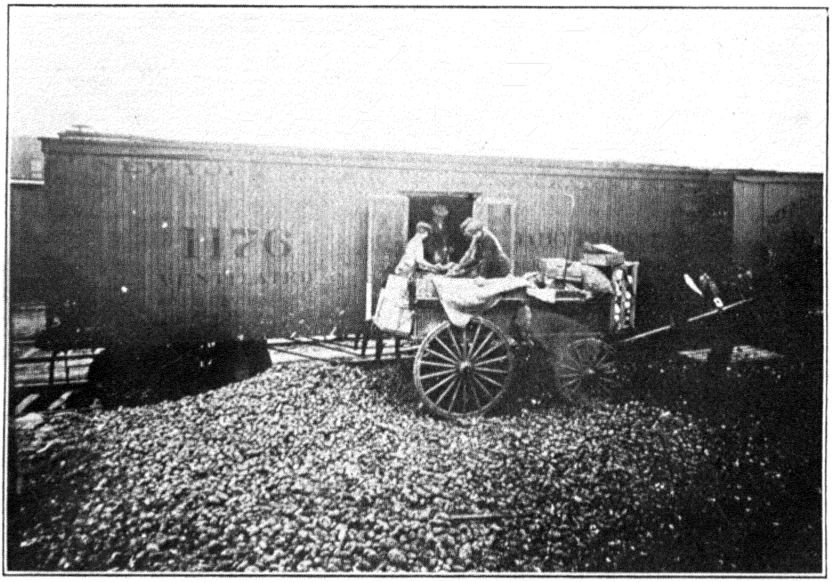

FIG. 8.—FAILURE TO GRADE FARM PRODUCTS CAUSES LOSS

This heap of material is worthless potatoes and dirt discarded by the buyers at a terminal market. Grading would have sorted this out before shipment instead of leaving it to be done after heavy freight cost had been paid. (Courtesy Wisconsin Station.)

ucts for the purpose of filling orders or for satisfying needs for definite things. Intelligent buying and therefore efficient purchasing requires that the middleman or consumer know in advance whether the product will meet the particular need 100 per cent or only 50 per cent. The greater the extent to which a prospective purchase is likely to fill the need for which it is being considered the higher the price which can be paid. On the other hand the more difficult the task of determining how fully a product will fit the needs of buyers, the more expensive selling must be.

In accordance with these facts, products are being sold in accordance with three plans for establishing value or what in other words might be considered the degree to which prospective purchases will meet the buyer's needs. These three plans of valuation are known as (1) sales by inspection, (2) sales by sample, and (3) sales by description.

Products Requiring Inspection Expensive to Market. — The losses incurred annually by failure to inspect ungraded commodities before purchase is made constitute one of the principal reasons both for high costs in marketing and for wide margins between prices to producers and consumers.[1] In the purchase of feeder animals by farmers more than 15 per cent of the live stock sold on the terminal stock yards of the country are purchased by stock feeders who ship them back to their farms for fattening. These feeder cattle, hogs, and sheep represent numerous grades of animals for which at present no dependable means of selling by description seems possible. As a consequence farmers desiring feeder live stock which cannot be obtained locally are obliged to travel to some one of the 69 terminal stockyards of the country and there make their own personal inspections and choices. The time and expense of such travel and inspection necessarily constitutes a substantial increase in the cost of securing

[1] U. S. D. A. Yearbook, 1919 p. 319.

feeder stock. It represents expense which a satisfactory description would make unnecessary.

While live stock belong to a class of products thus far poorly adapted to sale by description, many other products of smaller size adaptable to sorting and standardizing but for which this service has not been rendered occasion much higher selling expenses than do live stock. In marketing ungraded commodities inspection can be made by one of two methods. Either the goods must be sent to the buyer for his approval or rejection, or buyers must take trips to the points where goods are located. In either case freight or traveling expense constitutes increased cost. This leads to wider margins which act as a check to the quantity of products freely purchased and cause reduced prices to the seller. The service of grading and standardizing costs something, but this cost is far less than the loss from buying ungraded products. In spite of the cost of grading and standardizing, sales by description thereby made possible are less expensive than sales by inspection. For these reasons the service has become not only an essential part of the marketing system but forms one of the fundamental steps for improvement in marketing and reduction of its costs.

Sale by Description Reduces Marketing Expense. — The establishment of definite grades for various products and the standardizing of commodities in accordance with these grades enable buyers and sellers to come to an understanding without going to the expense of personal inspection. Thus certain kinds of flour, citrus fruits, and various other products are sold to distant buyers on the strength of trade names only. Where grades are in force but standardization has not been perfected or where buyers are purchasing for special needs for which standard grades are ill adapted, it becomes necessary to purchase on the basis of samples. Many grains and other products which can be sampled fairly accurately are

purchased on this basis. Manifestly it is less costly to have samples impartially made and sent to buyers for approval than to send them the entire lot or to require prospective purchasers to call and make their own inspections. For these reasons sale by sample is more economical than sale by inspection, though more expensive than sale by description.

The least effort and expense are involved in selling when products are classed into lots containing units of uniform size, shape, and quality and when it may be depended upon that products in given grades are always alike, regardless of the place or time of year that sale is effected. Because it is easier to get what one desires by purchasing standardized, graded products and because the keeping qualities of such goods are more dependable with less loss resulting to buyers, demand is much keener for this sort of farm products than for those which are ungraded. An excursion to the market where graded and ungraded apples, potatoes, grain, live stock or any other products are for sale side by side will convince the most skeptical that the public willingly selects and pays more for goods which have been made ready to sell by the service of grading and standardizing. The development successively of sale by sample and of sale by description has reduced the total volume of products handled by middlemen from a quantity representing that for which the consumer is willing to pay plus all waste, to a volume more nearly corresponding to that ultimately reaching consumers. As a result, purchase by inspection to some extent, and purchase by description to a great extent have appreciably reduced marketing costs in many lines.

Graded Products Bring Better Prices. — When the marketing system properly places the premium upon high quality, grading enables the seller, whether farmer or middleman, to obtain higher prices. Unfortunately, not all farm products are being purchased under conditions which place the pre-

mium on quality. In some regions farm products are bought by middlemen at prices which unfortunately put the premium on low instead of high quality, while in other territories higher prices properly place the premium on the better grades. Studies of cotton marketing, for instance, have shown that "there is absolutely nothing gained at present by producing cotton in Oklahoma which grades above good middling" while "other sections of the country are producing these qualities in commercial quantity and regularly collecting a premium for the superior excellence of the very highest grades."[1]

In North Carolina, the fact that buyers place a premium upon the higher grades of cotton enables those who have their product properly classed or graded before sale to obtain substantially higher prices. In the Coastal Plain section, classed cotton brought $1.50 per bale more than unclassed cotton.[2] In the absence of a grading system producers of high quality do not obtain the real value of their goods for the reason that neither they nor the buyers know the value. As a consequence, sales of unclassed cotton are made at a safe value to buyers, meaning in practice that purchase is made at a price based on the lowest quality found in the bale. These safe prices, determined as they are upon average conditions, give the man with higher grade cotton only average prices when he should have received a superior price or premium for his extra quality. The service of grading and standardizing removes this injustice by placing in each bale only one quality of staple. Moreover the producer thereby gains a knowledge of the quality of his goods and is better able to bargain for a price in keeping with the true grade and value. That farmers who graded their cotton before selling obtained prices of approximately $1.50 per bale more than for unclassed cotton of the same quality, or a premium of 2.5 per

[1] U. S. D. A., Department Bul. 36, p. 19. [2] *Ibid.*, Department Bul. 476, pp. 11–14.

cent, is certainly significant. Such a premium not only pays for the cost of the service but provides a net gain which increases the farmer's income.

Grading is Essential to Enlargement of Markets. — The farmer's individual interest lies in maximum economic production from his farm. No farmer grieves over finding that his yield of corn runs 60 bushels to the acre when original calculations were for only 30 bushels. Neither does he grumble when his hogs mature at the rate of six per litter instead of three. The farmer's real concern lies in having markets so extensive and a demand so keen that all of the products which he can raise will be taken at remunerative prices. That farmers can produce unusually large quantities of goods when prices are sufficiently high to justify increased effort was amply demonstrated by their response to war prices. Where prices rose the highest, as in condensed milk, cotton, hogs, cheese, and other lines, production also responded most completely. What intelligent farmer will intentionally fail to plow his corn, feed his live stock or pick his cotton with the hope of thereby reducing supply sufficiently to enlarge his net income through rising prices? The very idea is absurd. The farmer cannot make money individually by striking or otherwise failing to make his farm yield the economic maximum.

The most certain road to increased farm income lies not through reduced production but through production of commodities of high quality whose amount is increased to a maximum consistent with cost accompanied by reduction of the output of lower grade articles. The consumer's inherent desire for the best of everything guarantees a relatively constant and remunerative market for goods of uniformly high quality. The point to be emphasized is that creation of uniform high quality depends jointly upon output of high quality products by farmers and upon proper standardizing of

these quality products into their respective uniform grades. Some of the most striking examples of how farmers have captured new markets and stimulated old ones are shown in the experience of both New Zealand[1] and Danish producers of butter[2] and Danish producers of bacon.[3] The various large federated fruit and nut growers' organizations of California have more recently demonstrated the virtues of following the policy of producing quality goods and efficiently grading them.

The farmers, whose products are transmitted through a marketing system which at all stages complies with these characteristics of buyers, are bound to receive remunerative prices so long as they do not oversupply their markets. Under no circumstances can producers of any product obtain a remunerative price if they grow more than consumers want at that price. While overproduction is properly blamed as a cause for poor prices, the real reason for low prices is more often underconsumption. Faults in the marketing system are direct causes of such underconsumption. Short-sightedness in marketing which results in failure to develop comprehensive systems of distribution readily explains why marketing does not more completely overcome so-called underconsumption by adjusting the kind, quantity, and quality of products grown to the needs and desires of consumers.

To adjust production to consumption requires knowledge on the part of farmers as to the commodities for which consumers will pay good prices. This necessitates two things. First, information must pass from consumers to farmers through a marketing system which records prices that indicate distinctly the degree of preference which consumers have for various kinds and grades of products. Second, consumers must be made aware of the fact that products conforming to

[1] *Hoard's Dairyman*, Vol. L, No. 16, p. 481.
[2] H. Faber, *Coöperation in Danish Agriculture.*
[3] S. Sorensen, Report on Danish Bacon Factories.

their wishes and needs are available either at their local retail stores or at other definite and available points. That farmers have responded to consumer demands and made certain products available does not excuse them from all further responsibility. They must make this fact known to prospective buyers before demand can become effective in taking from farmers the supply created. The marketing system is so vast and contains so many inefficient, uninformed middlemen that large numbers of consumers would be without commodities of great service to them, were they hesitant in demanding that the products be supplied. But how can consumers be expected to demand articles about which neither they nor their immediate local middlemen have information? Obviously, the answer is that farmers, when middlemen fail to do so, must assume the responsibility of informing consumers that goods which will meet their needs have been created and that local middlemen will respond to demands placed upon them for these commodities. The system of conveying this character of information to consumers and to middlemen is advertising. Formerly, when producer and consumer lived side by side or when very short distances separated them, it was not at all difficult or expensive for the two parties to get together and inspect surplus products available for exchange. To-day getting together for inspection is economically impossible, as was shown earlier in this chapter. Advertising economically supplies information which was formerly gained by personal inspection. The secret of successful advertising, according to experience, lies in the care with which a grading policy is carried out and upon the dependability of such grading. For the same reason that people return poor goods ordered on the condition that they be returned if unsatisfactory on delivery, consumers reject or fail to demand products, even though advertised, which have not been faithfully graded and standardized. This is the reason why under mod-

ern commercial conditions, products advertised without grade or brand stimulate little if any demand. The service of grading and standardizing is necessary to develop economical advertising, or in other words, to inform consumers and buyers.

Advertising Increases Demand. — The experience of numerous comprehensive marketing federations conclusively proves that advertising stimulates and economically increases the demand for farm products. The important fact which these federations emphasize is that their success in advertising has been due to the use of special brand names, such as "Eatmor Cranberries," or "Sun Maid Raisins," which are efficiently guarded and promoted by rigid grading and standardization. It was the grading policy which gained public confidence and created the enviable reputation which these brands and their products hold on the markets of the country. One of the real measures of the economic value of the service of grading and standardizing is therefore to be found in the influence which advertising has upon demand. Of course there are many examples where advertising has been overdone or where it has been carried out for purely acquisitive purposes as contrasted with mutual economic welfare for both producers and consumers. It is also certain that some substitutions that take place as a result of advertising are neither economically or otherwise desirable. Frequently, however, substitutions do stimulate increased efficiency all along the marketing line to regain lost popularity and volume of business. In such cases far-reaching benefits accrue to the public. Proper balance here as elsewhere is essential to the development and maintenance of high efficiency on the part of middlemen consistent with public welfare.

The most thorough test of advertising for which actual facts are available is the experience which the American Cranberry Exchange gained in Chicago. During the season of 1916, $23,000 were expended for an advertising campaign

in that city. Newspaper "ads," street-car posters, painted bulletins and service work were all developed. That the campaign was very successful in creating increased demand and sales is clearly indicated by facts in Table IV. The increased sales in Chicago during 1916 were very much greater than in any other city. Moreover the gain was both heavy and consistent in comparison with the sales of preceding years.

TABLE IV. — ADVERTISING STIMULATED "EATMOR CRANBERRY" SALES IN CHICAGO [1]

Market	Sales in 1916 Compared to Sales in 1915	Sales in 1916 Compared to Sales in 1914	Sales in 1916 Compared to Sales in 1913
Chicago	Gain 47½ per cent	Gain 27½ per cent	Gain 57 per cent
New York	Gain 5 per cent	Loss 18 per cent	Loss 2½ per cent
Boston	Loss 50 per cent	Loss 12 per cent	Loss 36 per cent
Philadelphia	Loss 17 per cent	Loss 57 per cent	Loss 41 per cent
Pittsburg	Loss 1 per cent	Loss 18 per cent	Loss 13 per cent
Buffalo	Loss 8 per cent	Loss 7 per cent	Loss 11 per cent
Cleveland	Loss 8 per cent	Loss 10 per cent	Loss 22 per cent
Detroit	Gain 26 per cent	Loss 18 per cent	Gain 3 per cent
Milwaukee	Gain 28 per cent	Loss 23 per cent	Gain 10 per cent
Indianapolis	Gain 17 per cent	Loss 20 per cent	Gain 16 per cent
St. Louis	Loss 4½ per cent	Loss 38 per cent	Loss 2 per cent
Kansas City	Gain 15½ per cent	Loss 25 per cent	Loss 16 per cent
Omaha	Gain 22 per cent	Loss 14 per cent	Gain 18½ per cent
Minneapolis and St. Paul	Gain 9½ per cent	Loss 1½ per cent	Loss 9 per cent

In commenting upon this advertising campaign the president of the American Cranberry Exchange states that "The advertising in 1916 was intensive but confined to a limited territory. The Exchange had never advertised cranberries before; consequently it was important to follow a plan that would furnish data for estimating the effect of advertising. By comparing the great increase in our business in the territory where we advertised with the trifling increase elsewhere

[1] *American Cranberry Exchange* — Report on "Eatmor Cranberry" Sales Season, 1918, p. 18.

we concluded, after failing to discover any favorable business conditions peculiar to the former territory, that this marked difference was the result of advertising."[1]

As a consequence of the increased sales of cranberries in Chicago during 1916 the Exchange devoted a larger sum of money for an extensive country-wide advertising campaign in 1918. The reasons for the campaign and its effect upon consumers and upon the trade are very clearly presented by the manager of the exchange. His statement gives a representative picture of the experience of many national advertisers of farm products and clearly indicates the economic value of advertising as a means of increasing and stabilizing demand. In describing the 1918 campaign and the principles underlying it, the general manager writes:

"*Artificial demand* is that created by the activity of dealers (jobbers, retailers and their salesmen) in pushing sales by properly displaying the fruit so as to attract the consumer's eye, and by suggesting the purchase, etc., and by advertising to consumers on educational and suggestive lines in a manner that will influence those who already like cranberries to eat more of them, and to teach them different ways of serving that will arouse and increase their appetite for our fruit. Also to add new consumers who have not used cranberries, except perhaps with the Thanksgiving turkey, and create in them a desire to have cranberries served with other meats than turkey, and for dessert, spreads, etc.

"The desired interest of the dealers can best be obtained by so controlling the distribution as to insure a stability of market and thus assure them of reasonable profits. The smallest liability to loss and the greatest certainty of a moderate profit interests dealers more quickly and certainly than the possibility of large profits, coupled with the danger of serious losses. Dealers are often severely criticized for charg-

[1] *American Cranberry Exchange* — Report on "Eatmor Cranberry" Sales Season, 1918, p. 2.

ing seemingly exorbitant profits on fresh fruits, but where there is a frequency or danger of violently fluctutating values such apparently unreasonable margins are necessary for their protection.

"*This year*, owing to the severe sugar restrictions, the universal opinion of our customers, brokers and agents was to the effect that cranberries would have a very moderate and slow sale regardless of the price asked. No previous crop had been marketed under such apparently adverse conditions because cranberries can only be eaten cooked and require much sugar to be palatable.

"To meet the situation the Exchange planned an intensive educational advertising campaign, showing ways to make cranberries delicious with much less sugar than the amount generally used, and also some recipes requiring no sugar. We spent $54,000 (fifty-four thousand dollars) in thirty days, beginning about the middle of October in the United States and on October 6 in Canada. We advertised in eighty different markets throughout the United States and Canada through one hundred and thirty-five different newspapers. We also ran half-page and page advertisements in the six leading women's magazines, beginning with the November numbers.

"The Exchange opened the price on Early Blacks September 13 at $8 per barrel. It had previously announced to the trade its advertising plans to begin by the middle of October throughout the United States and Canada. Advance copies of the advertisements were mailed to brokers and customers.

"The 'first round' orders were ample to take the larger percentage of the early fruit, but these were not consumed freely until our advertising had run long enough to become effective. When we opened the price on our late fruit we found many of our customers so well supplied with Early

Blacks left from their early purchases that they felt it necessary to cancel their conditional orders for the late fruit and depend on disposing of their Blacks for the Thanksgiving trade. Only about 25 per cent of the usual number of cars of late fruit was booked during the first week following the opening price.

"Successful advertisers advise us that we should expect advertising to run several weeks before producers begin to feel its material effect and especially would this be probable when both retailers and jobbers were feeling so pessimistic that they could not be converted until their stock should be cleaned up and an active inquiry forced on them.

"We began to receive the first encouraging inquiries from the jobbers about November 6. By that date the total amount of berries we had on hand was within 10,000 barrels of the amount we had on hand in 1916, and nearly double that of 1917. The demand continued steady thereafter, no speculative orders, but all ordering sparingly for immediate supply until November 20. By Thanksgiving it was very apparent that most of the trade had cleaned up their stocks and that nearly all the dealers would pass Thanksgiving without a supply for their Christmas trade, which was contrary to the situation in 1917 and 1916; also that *their stocks were less than any previous season* on the same date. The *growers had shipped so freely during November that their supplies were reduced to about* 10 *per cent of the total crop.* While this stock was five times larger than on Thanksgiving, 1917, there was a most unusual demand for Christmas, whereas *in 1917 there was practically no demand at that time.*"[1]

Advertising experience of the California Fruit Growers' Exchange clearly emphasizes the value of this kind of work. With 72 per cent of the citrus fruit crop of California to market and a membership of growers who are constantly increas-

[1] *American Cranberry Exchange* — Report on "Eatmor Cranberry" Sales Season 1918, pp. 6–7.

ing in number and in both acreage and production of citrus fruits, the Exchange faces the problem of continuously enlarging its market, particularly for lemons and Valencia oranges. The necessity of gaining new markets and of stimulating old ones and the confidence in doing this by advertising, is clearly indicated by the general manager when he writes:

"The citrus industry will expand rapidly in the next decade. The navel orange has possibly nearly reached its maximum production and new navel areas are not being planted extensively. The Valencia, however, will increase for several years, while the lemon production, which has now reached the previous total domestic and imported supply, will probably increase 50 per cent in the next few years. The per capita consumption of both oranges and lemons must therefore be greatly increased if the larger future crops are to be marketed profitably.

"The responsibility for accomplishing this, as well as all other far-reaching industry developments, falls on the Exchange, because no other shipper or group of shippers can influence it, or are attempting to do so. Through its advertising and its sales promotion work with the wholesale and retail trade, the Exchange is creating a larger consumer demand and an increased interest on the part of the trade in merchandising methods that increase distribution and give the consumer fruit at a lower price, while making larger annual profits for the trade."[1]

The effectiveness of advertising in expanding and intensifying markets is well illustrated by the experiences of various coöperative marketing federations. Particularly illuminating is the response to the various advertisements of the California Fruit Growers' Exchange during the year 1919.[2]

[1] Annual Rpt. of General Manager California Fruit Growers' Exchange, 1919, pp. 7–8.
[2] *Ibid.*, p. 15.

Orange, lemon, or marmalade recipe books were requested by 176,593 people and copies were sent in return. "Sunkist" illustrated orange or lemon recipe cards were sold at cost to 15,344 women, while 100,500 "Sunkist" orange calendars and 4329 box display racks were sold to trade at cost. Window display material was written for by 14,941 retail fruit merchants. Furthermore the trade ordered 1795 theater slides, 4002 electrotypes for retailer's advertisements, and 76,000 booklets. Plans for the construction of orange juice stands were requested by 375 boys, while 75 boys ordered and paid for complete drink stands and equipment. An orange film was run for 1100 full days, showing before at least 1,000,000 people. Marmalade samples were requested by 90,000 people in response to six magazine advertisements. During the year 982,000 pieces of mail matter and almost 5,000,000 pieces of window display material were sent out by the advertising department. Experimental and other promotional work of various helpful kinds was undertaken.

When one pauses to consider how tremendous would be the cost of attempting to reach this widely scattered and very large number of retailers, wholesalers, and consumers for personal solicitation and instruction it seems remarkable to think that the task was actually accomplished through advertising at a cost of approximately $500,000. When considered in terms of volume of business this advertising cost is exceedingly small in view of its effective results in creating demand for the citrus crop and therefore in moving the annual supply at remunerative prices. The cost amounted to less than three fifths of 1 per cent of the value of citrus fruits sold and represented only one fifth of a cent per dozen. The management considers that this cost is more than made up by the resulting increased demand.

While advertising increases the demand for a main product with far less expense than personal work would require, it

also accomplishes similar results for by-products which hitherto have not existed, and hence, in the absence of advertising, might not be economically salable in sufficient volume to justify their manufacture. To prevent flooding of markets at certain critical times or because of seasonal oversupply, as well as to salvage inferior grades and over-ripe fruit, requires that possibilities of by-product utilization be developed. The California Fruit Growers' Exchange, therefore, operates marmalade plants which turn to profitable account a considerable quantity of oranges which otherwise would be a total loss and which to that extent would reduce net prices to farmers. But to sell a large volume of marmalade thus originated requires economical access to consumers and to the trade. Obviously "Sunkist" gives the guarantee and advertising conveys the information which creates a demand for all the product. Without processing and advertising, the oranges which go into marmalade would be largely unmarketable. The fact that this by-product development results in selling a higher proportion of this farm product to consumers indicates elimination of waste and hence the prevention of loss which would have necessitated a wider margin between farmer and consumer prices.

If advertising reduces costs of marketing and expands markets economically, it is certain that grading and standardizing, upon which both trade names and public confidence are based, is fundamentally an economic and therefore an essential marketing service.

While some advertising is essentially educational and descriptive, thereby enabling the buyer to obtain desired purchases with the minimum expenditure of time and money, not all advertising falls in this class by any means. There is a great deal of purely selfish or acquisitive advertising. This necessarily becomes an increasingly important item of competitive expense without changing the total consumption of

the particular commodity and without increasing its production. Obviously society gains little from mere struggling of competitors to gain the benefits of larger business units without in the least changing either the general efficiency of the marketing system or reducing the margin or difference between farmer and consumer prices. Advertising of this sort, while a profitable venture for individual enterprises, is generally not economical for society. In contrast to it, advertising of an industrial character which is highly educational and protects the interests of farmers and consumers, accompanied by decreasing costs of marketing, is certainly an economic gain not only for individuals but also for society in general.

SUMMARY

1. Farm products vary greatly in quality, shape, and size of units. To enable buyers to obtain precisely what they want in the exact amount required, it is necessary that commodities be graded and standardized. The cost of rendering the service is small compared to the advantages thereby derived.

2. Grading saves time for the consumer by enabling him to buy exactly what he wants and no more. It saves him money because there is either less waste, or because time and money do not have to be expended in disposing of undesired commodities which had to be bought along with desired articles, as so frequently happens in the marketing of ungraded goods.

3. Grading reduces the cost of marketing by decreasing to the minimum the quantity of products which must be handled, transported, or stored. The ideal minimum of products to be marketed may be considered as the amount which consumers ultimately purchase. When grading is not practiced, vast amounts of dirt, culls, spoiled and other useless products for which consumers will not pay are marketed by farmers and succeeding middlemen. These necessarily involve expenses for freight, handling and storing which represent needless loss that is saved by the service of grading.

4. Grading classifies commodities according to uniform variety, quality, size, shape, and other characteristics which are basic considerations in the determination of relative value at a given time. The real value of products is the primary basis for credit if they are to be used as collateral. Grading therefore is fundamental to sound and plentiful financing.

5. Products which are accurately graded and standardized are adapted to sale by description instead of requiring either sampling or inspection as a basis of sale. Consequently seller and buyer find it possible to transact business by communication inexpensively over long distances instead of being obliged

to meet the heavy expense of traveling to see goods or of paying freight to have the commodities sent to them on approval. Grading and standardizing appreciably reduce the costs of selling and buying.

6. Graded and standardized products bring higher returns to the farmer and to successive middlemen because, by saving time and money for the consumer, they enable consumers to bid higher prices. Consumers are able to bid these higher prices, and still save money for themselves, because graded commodities do not include waste for which they pay in buying ungraded goods. In addition to better returns to farmers for superior products sold, the culls and other inferior commodities are left on the farm for live-stock feeding purposes, for which they have some value, instead of being shipped and entirely wasted.

7. Consumers want more quality products but cannot obtain them unless they are first produced and second, made available. To increase quality production requires that the premium be placed upon quality and this is not possible without accurate grading and standardizing. To make products available to consumers requires that middlemen transmit them from farms to consumers. This they fail to do unless consumer demand is felt constantly. Advertising, which educates the consumer regarding the source and adequacy of production, stimulates stability of demand and thereby leads middlemen to render their services regularly and efficiently.

8. It must be emphasized that advertising may be detrimental as well as helpful to the public. Merit in the method of selling depends upon whether the total cost of marketing is thereby reduced. When advertising merely increases the volume of business for one middleman without causing either increased consumption or production of a given commodity and without reducing the costs of marketing it is neither good nor bad for society. When total marketing costs are increased by advertising positive harm is done to the public. Only when total marketing costs are reduced so that consumers receive a more adequate supply because farmers have obtained a larger proportion of the consumer's dollar, is it possible to say that advertising is both individually and socially desirable.

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CHAPTER V

PACKAGING FARM PRODUCTS

FARM products differ greatly in size and shape, in perishability and bulkiness. Practically all of them require packaging in one form or another, either to facilitate handling or to guarantee prevention of excessive shrinkage or waste. Almost the only examples where packaging is not required in connection with the marketing of farm products is that of live-stock shipment by car load and that of car-lot shipment of grains, potatoes, sugar beets, or similar bulky and relatively nonperishable articles. Hay must be baled before shipment and baling constitutes a form of packaging. Milk must be confined in cans. Poultry requires crates, wool must go in bags, cotton into bales, eggs into crates, and so on through a vast list of goods. Cheese must be paraffined and placed in boxes, butter goes into tubs or cartons, fruit into boxes, barrels or baskets, flour into sacks and sweet potatoes into hampers or baskets. Moreover, each successive middleman may find it necessary to change or repackage goods because the quantity of products in containers of wholesale size may have to be broken into smaller and smaller lots to meet the consumer's demand for small daily purchases.

Packaging Essential to Economical Marketing. — Few people realize how great is the variety of containers utilized in the process of marketing. During a day's visit to the wholesale markets of Philadelphia and of New York City, as reported recently,[1] no less than nine distinct types of packages or

[1] Report by S. W. Shear.

containers were found in use for vegetables and fruits. Thirty-two different products were packed in nine sizes and kinds of packages known as carriers, crates, boxes, berry crates, hampers, climax baskets, drums, round bushel baskets, and sacks. Most of these products were not packaged in uniform containers. For example, onions were found in three kinds of crates and in at least one sort of hamper. Asparagus was found in no less than four kinds of crates. Celery was in five distinct sizes of crates. Cucumbers came in either boxes or hampers. The use of a great variety of containers unavoidably contributes to confusion and necessarily causes higher marketing cost than where standardized packaging is the custom of the trade.

The necessity for packaging in some form is amply demonstrated by the fact that products coming upon the terminal markets from all parts of the country are delivered in containers of one kind or another. The service is rendered by some one because it results in economy that outweighs its costs. While there are innumerable reasons for placing products in packages, there are at least two main groups of economic advantages accruing from the service: (1) packaging facilitates handling, and (2) it reduces or prevents shrinkage and deterioration.

Packaging Facilitates Handling. — Many farm products and their derived finished commodities are in the form of numerous small physical units. The shape and size of these units are such that without packaging neither men nor machinery would be able to handle or transfer them readily or rapidly. Take for example apples or lettuce, potatoes or flour, poultry or eggs, or any other commodity whose weight is small but which does not lend itself to convenient handling, and the value of packaging becomes at once appreciated. Suppose that a proposal is made to ship eggs or poultry without the use of crates. While at present one man is perfectly

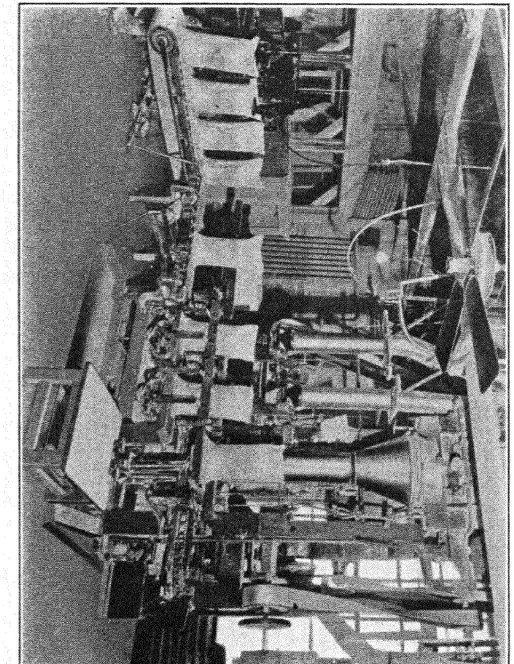

FIG. 12.—FLOUR IS PACKAGED IN SACKS

Imagine the futility of attempting to market flour without a container! Flour is packaged in sacks by labor-saving machinery. The container in this case both protects and facilitates the handling of the product. (Courtesy Pillsbury Flour Mills Co.)

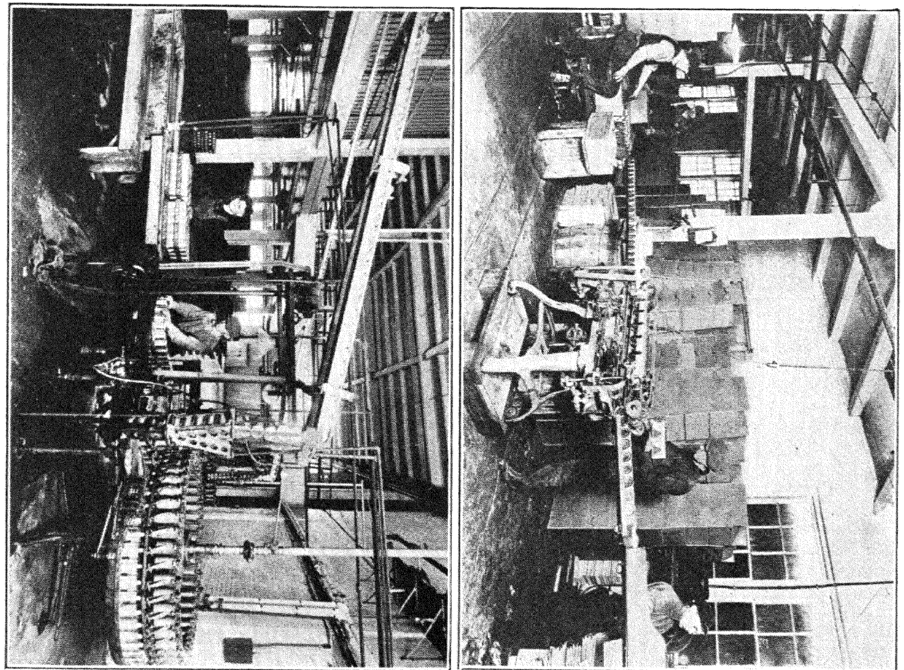

FIG. 11.—PACKAGING CONDENSED AND CANNED MILK

Condensed milk is packaged in cans to preserve it. The work of canning (see lower picture) is a complicated task done by machinery operated by middlemen. To facilitate the handling of the canned product (see upper picture) a number of cans must be packaged into boxes of fiber or wood. All farm products require the service of packaging in some form either to facilitate handling, to reduce bulk, or to serve as a means of conservation.

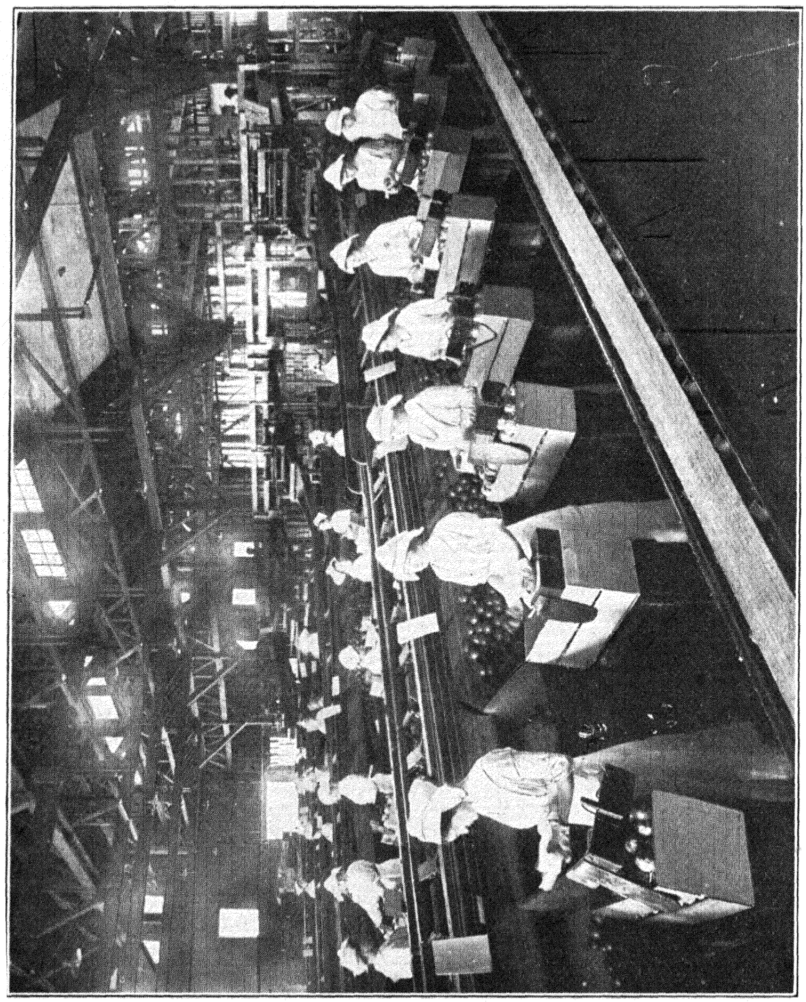

FIG. 13.—PACKAGING SUNKIST ORANGES

After grading, oranges are moved to experts shown in the picture, who package from 50 to 75 boxes in a day. The fruit in each box is uniform in size and grade and is packed according to definite arrangement that varies with the size. Paper wrappers tend to preserve the fruit and boxes to facilitate handling. (Courtesy California Fruit Growers' Exchange.)

able to carry or move by truck, from the warehouse to the car, at least one crate containing 30 dozen eggs, were he to attempt to carry eggs without the help of a package it would take him about thirty times as long. In other words, without the service of packaging, middlemen who specialize in marketing eggs would probably require 30 men to load cars where they now employ one.

Not only a perishable product like eggs requires containers but for many other commodities like canned vegetables or other foods packaging is essential to economy in marketing. Suppose for example that canned peas were to be carried from warehouses to cars for shipment. Unaided by packages, a man cannot carry more than a fraction of what may be readily handled when properly packed in boxes. For this practical reason cotton and wool are packed into bales, fruits are placed in barrels and boxes, potatoes are sacked, and numerous other raw materials and finished products are packaged in suitable containers.

The cost of packaging designed to facilitate handling only is far lower than where additional objects are sought, such as the preservation of a product. Frequently one container is required to preserve an article and a second is necessary to facilitate handling and reduce marketing cost. Thus while peas are preserved by canning, canned peas are packaged in boxes to make handling easier and more economical. The cost of the can to preserve peas at one time amounted to 2.62 cents or 22.72 per cent of what canning factories received for a can of peas, while the box container designed to facilitate handling cost only .6 of one cent or 5.2 per cent of sales.

It often happens that a single container serves the twofold purpose of facilitating handling and of preserving the product. Such is the case with cotton, wool, and many similar products which deteriorate if exposed. However, the primary purpose of packaging these products as now practiced

is largely to facilitate handling. Proper packaging of such products as a means of protection has been inadequately developed.

Value and Cost of Packaging Cotton. — Probably no other farm product requires the service of packaging more than cotton. Few unpackaged raw materials are more bulky or difficult to handle. Efficient marketing necessitates that cotton be compressed into the smallest space economically possible. To this end ginning companies bale cotton lint after the seed has been removed by processing. The cost of such packaging at the gins when cotton prices were from ten to twelve cents per pound amounted to 75 cents to $1 per bale of 500 pounds gross weight. Since the package itself usually consisted of six yards of two-pound bagging valued at approximately eight cents per pound and six bands weighing 1½ pounds each, the tare weight totaled not less than 21 pounds. Practices of the trade in fact allow tare weights varying from 19 to 24 pounds.[1] Assuming a 22-pound tare or weight of packaging, a bale of cotton would contain 478 pounds of lint worth $47.80. Thus the cost of packaging at the gin amounted to 1.57 per cent to 2.1 per cent of the cotton value.

Packaging service at the gin, however, does not constitute all that is required in marketing cotton. Usually sampling leaves baled cotton in poor shape, so that patches are required to prevent losses by theft, damage and possible fire. It is estimated that patching costs from 10 to 25 cents per bale or a further .21 per cent to .52 per cent of the value of the cotton.

As a general rule compression at the gin packs the cotton to a density far less than that required for economical transporting and storing. Consequently the service of packaging must be rendered further by specialized compressing establishments operated by railroads or by other middlemen. The

[1] U. S. Department of Commerce and Labor, Bureau of Corporations, Cotton Tare, p. 48.

usual cost of this service which compresses cotton from a density of possibly only 12 pounds per cubic foot to a common density of 22 pounds, was 50 cents or 1.04 per cent of the value.[1] Thus the total cost of packaging cotton at gins and compresses, including patching, amounted to 2.82 per cent to 3.76 per cent of the value per bale.

Packaging Reduces Freight Cost. — The economic importance of packaging as a means of reducing marketing expense is brought out in a striking manner by comparison of the number of freight cars required for shipping ranch-baled, gin-baled, and compressed cotton to European markets. About two thirds of the American cotton crop is exported, half of the crop going to Great Britain, France and Germany.[2] According to the experience of a firm of merchants in Oklahoma, substantially one cent per pound was required to cover railroad and steamship freight in transporting export cotton when country shipping point prices ranged from 10 to 12 cents per pound.

Ranch-baled cotton with a density of 11 to 12 pounds per cubic foot requires four freight cars to haul a commercial lot of 100 bales. Because of its lightness and bulkiness, cotton though compressed to this density does not permit capacity loading of either railroad cars or of steamship tonnage. As a consequence, while the space of a car or steamer might be completely filled, four times the weight could be carried were the bales compressed to greater density. To economize parts of this space, the railroad delivers the cotton to a compress, where it is pressed into about half its former volume and the density changed from 12 to 22 pounds per cubic foot. This saves the use of two freight cars or fully 50 per cent of the space. By gin compressing, cotton could be readily packed in more compact bales of a density of 28 to 35 pounds and

[1] U. S. D. A. Yearbook, 1912, pp 456-7, and U. S. D. A. Department Bul. 311, p. 5.
[2] U. S. Department of Commerce and Labor, Bureau of Corporations, Cotton Tare, p. 11.

even forty pounds per cubic foot. Instead of four cars, only one would be necessary to haul a round-lot of 100 bales. Thus the present transporting cost of one cent and compressing expense of one fifth cent per pound might be reduced by half at least, through further application of the packaging service.

Packaging Saves Storing Cost. — Cotton packaging as generally practiced in the United States has not been developed to the extent that it has been in either Egypt or India. The Egyptian bale is compressed to a density of 32 pounds per cubic foot and the Indian bale to 40 pounds density, while the American bale has a density of only 22 pounds. The result is greater cost of transporting, storing and handling American cotton. This is clearly illustrated in the experience of a cotton warehouse in Manchester, England.[1] The capacity of the warehouse is 5300 bales of Egyptian cotton, averaging 750 pounds to the bale or a total of 3,975,000 pounds. Because the service of packaging cotton is poorly developed in America, this concern is able to store only 3500 bales of American cotton averaging 500 pounds per bale. Thus with a holding capacity of only 1,750,000 pounds of American cotton or 44 per cent as much as can be stored of Egyptian cotton, it is no wonder that space at current rates is not available to the American product. Storage rates would have to be more than doubled to make attractive the handling of cotton from the States.

From these examples it must be evident that the service of packaging is economically necessary because it not only facilitates the handling of products but reduces the costs of other essential services as well. Products like cotton and wool when well packaged are prepared for transporting, storing, and distributing at minimum cost. This is the case notwithstanding the fact that the public considers as unneces-

[1] U. S. D. A Farmers' Bul. 764, p. 24, Fig. 25.

sary the middlemen rendering the service. Packaging is fundamental in marketing, although great improvement is possible which would result in further reduction of expense. For criticism of middlemen and discussion of the means for improvement in marketing conditions see Chapters XV, XVII, and XVIII.

Packaging Prevents Shrinkage and Spoiling. — Farm products which are high in moisture content, either in their raw or finished condition, are constantly subject to evaporation or other shrinkage unless protected by adequate packages. Butter, cheese, milk, meats, and various other foods fall in this class. The service of packaging has been adapted to these products by means of tubs, covered and hermetically sealed cans, boxes, barrels and various other packages. Their use has been economically justified by experience, which shows that losses hitherto burdensome could be made less so by use of adequate containers.

Cheese presents a good example of a product requiring two applications of the service of packaging, one to facilitate handling and the other to prevent shrinkage and spoiling. A part of the cost of manufacturing cheese at the local factory consists of boxes. When prices of cheese averaged approximately 30 cents per pound the cost of boxes per pound of cheese was practically one half cent for "twins," three fifth cent for "long horns," and one cent for "daisies." [1] Thus packaging at the local point ranged from 1.7 per cent to 3.3 per cent of the value of cheese.

On arrival at the concentration warehouse further packaging is done in the form of dipping the cheeses in melted paraffin and returning them to their box containers. According to figures in Table V the dealer's packaging costs per pound amounted to .062 of one cent for paraffin, and .027 of one cent for boxes to which should be added labor cost of about

[1] "Twins," "long horns," and "daisies" refer to the style in which cheese is made up.

.055 of one cent, for wages. Thus paraffining expense of .144 of one cent or .47 of one per cent of the value of cheese is expended to prevent shrinkage. It is well known, however, that the shrinkage of cheese in the absence of paraffining amounts to several per cent of the weight and hence would represent a loss far outweighing the cost of ½ per cent of the value to provide the service of paraffining. Not less than two fifths of the operating expense of the cheese dealer, whose figures are shown in Table V, was for packaging. Without the service, loss by shrinkage and spoiling would have caused serious reduction in net prices to farmers. Through the efficient rendering of this service, marketing cost is greatly reduced because a higher proportion of the cheese reaches the consumer in attractive and palatable condition.

TABLE V. — COST OF CHEESE PARAFFINING [1]

EXPENDITURE	AMOUNT CENTS PER LB.	PER CENT OF SELLING PRICE	PER CENT OF TOTAL COSTS	PER CENT OF WAREHOUSE COST ONLY
Cheese	30.209	98.07	—	—
Paraffin	.062	.20	14.4	20.9
Boxes	.027	.09	6.3	9.1
Warehouse labor	.111	.36	25.8	37.5
Other warehouse expense	.073	.24	17.0	24.7
Warehouse depreciation	.023	.08	5 3	7.8
Selling	.134	.43	31.2	—
Profit	.165	.53	—	—
Cheese Sales	30.804	100 00	—	—
Total costs	.430	1.40	100.0	—
Warehouse cost	.296	.96	68.8	100.0

Packaging Increases Butter Prices. — The consumer establishes decided preferences for products packaged in certain ways by demanding and paying for them. As a consequence retailers endeavor to carry in increasing proportions supplies for which consumers maintain a constant and insistent de-

[1] Wisconsin Cheese Producers' Federation, Annual Report, 1910.

mand. Butter serves well to illustrate this point. Many people can recall that butter was at one time sold chiefly from bulk or tub supplies. A parchment paper was placed on the scales and butter taken from the tub by a ladle was weighed to the right amount. This consumed time both for the retailer and the consumer. Moreover, the purchase did not appear attractive as does the neat pound carton of butter which during recent years has so largely displaced the retail selling of butter from bulk or tub supplies.

This change has come about because the consumer has been willing to pay more for butter in pound print size, packaged in cartons, than for that packaged in tubs or cubes and requiring repackaging by the retailer. The desires of consumers are reflected in demands upon retailers which cause the price differences indicated by the following typical market quotation:

BUTTER PRICES TO CHICAGO RETAILERS [1]

SCORE IN PER CENT (100 is perfect)	TUBS	PRINTS	CARTONS
Best (92–94)	59¾–61¾	61¼–62¼	62¼–63½
Good (89–91)	54– 56	59¼–60¼	60¼–61¼

It will be noticed that butter packaged in cartons brings the top price, being one cent over prints, which in turn are one cent higher than tub butter. That butter cut in prints and put up in cartons should bring a minimum of one cent more than butter in prints only and two cents more than tub butter is a fact due entirely to the convenience, attractiveness and economy of a certain kind of packaging. The quotations copied above indicate a minimum premium for butter in cartons of 2.8 per cent to 4.2 per cent above the price of tub butter. The common, in fact, almost universal, impli-

[1] Chicago, *Tribune*, November 23, 1920, p. 21, column 1.

cation that there are too many steps in marketing, when faced with these facts about butter, requires modification. If consumers are so eager for butter in cartons that they will regularly pay a premium of 2.8 per cent of the value of butter for this style of package, it is certain that middlemen who can profitably render this service for two cents per pound are literally requisitioned by consumers to do the work. As a matter of fact the more efficient large scale butter manufacturers are able to pack butter in cartons with far less expense than two cents. In a study of the cost of making and packaging 19,618,491 pounds of butter it was found that the expense for cartoned butter amounted to 2.0953 cents while that for tub butter was 1.7219 cents. The market price of butter averaged 28.5 cents, so that the difference of .3734 of a cent represented the extra expense of printing butter and packaging it in cartons. This extra cost was only 1.31 per cent of the value, while the premium in price at the lowest was 2.8 per cent of the value. The middleman who efficiently performs the service of packaging, according to these figures, makes a high rate of profit. He invests 1.31 per cent of the market value of butter and not only recovers his money but receives a net gain of 1.49 per cent of the value, making more than 113 per cent on his investment. In the face of these facts it is no wonder that printed butter put up in cartons has almost completely displaced the retailing of bulk butter from tubs. For middlemen to refuse to perform a marketing service, which premiums from the consumer make so remunerative, would be a sign of very poor business judgment. That this premium persists and stimulates the rendering of the packaging service is sufficient indication that it is necessary and economical for the present.

Packaging Preserves Canned Foods. — During recent years the packaging of fruits, vegetables, and other foods to conserve the surplus supply of certain flush producing seasons

for use in winter or other deficit producing periods has been greatly extended. Typical of this group of products, for example, is the canning of peas. According to facts presented in Chapter VI, Table XII, packaging accounts for 47.3 per cent of the cost of operating pea-canning factories, cans being the largest single item of expense. Considered as a proportion of what the factory receives for its finished products cans and boxes amount to 27.9 per cent, while the peas themselves represent only 26.4 per cent. The raw materials used by the canning factory are as much cans and boxes as they are green peas. Thus far, cans are the most economical means of preserving this kind of food.

To have peas in winter the consumer must be as willing to pay for the necessary packages as he is to compensate the farmer for his peas. As a matter of fact, the demand for peas during the war was sufficiently strong to provide funds large enough not only to cover canning-factory costs but to pay very attractive profits, amounting to 11.5 cents out of each dollar of sales. As a result of this high level of profits many new factories, including at least one farmers' coöperative pea-canning factory, were established in Wisconsin alone. It is interesting to note that the coöperative middleman performed the identical services at substantially the same expense as did the private middlemen. The only noticeable difference was that farmers received the profits of the business in addition to the price received by them for peas. The point worthy of emphasis is that the canning of any kind of food is expensive. The finished product represents a combination of raw materials of which the food itself and the container are the most important elements. Without the can or some other more expensive container green peas could not be kept until winter. This in itself is adequate proof that packaging is a necessary marketing service. That the development of the canned-food industry has increased the size

and scope of markets for farmers is further emphasis of its economic importance.

Costs of Packaging are Extremely Variable. Both the objects and the costs of packaging have been seen to vary. A comparative idea of these variations is brought out by facts (see Table VI) taken for various products at random.

TABLE VI. — COMPARATIVE PACKAGING COSTS FOR VARIOUS PRODUCTS

PRODUCT	PACKAGING COST IN PER CENT OF TOTAL COST	PACKAGING COST IN PER CENT OF SALES
Apple butter	36.0	—
Canned peas	31.5	27.92
Jelly and preserves	31.0	—
Flour	29.4	3.14
Canned salmon	24.5	—
Butter	22.7	1.28
Canned fruits	21.0	—
Dried peaches	12.8	3.34
Cheese	12.3	2.09
Fruit juices	10.9	—
Barreled fruit stock	5.0	—

In general, foods like canned peas, which necessitate the use of special containers as a means of preservation, involve much higher packaging costs than do other products such as flour. Some foods are highly concentrated. Their value being great, the cost of packaging, though representing a large proportion of the middleman's costs, may be only an insignificant part of the selling value of the finished article. This is shown by the figures for flour in contrast to those for canned peas. Again the size of container affects cost, as is shown by the figures for barreled fruit stock in contrast to canned fruits The variations in cost of packaging are due to so many justifiable differences in kind of product, size of container and object to be attained by packaging, that statement of any sweeping or general rule is impossible. Facts show clearly that specific judgment should be based upon facts of a given

roduct at a definite time and place. In general, the service ; essential in marketing because it is economical to consumers, ırmers, and middlemen.

SUMMARY

1. Farm products vary extremely in size, shape and adaptability to hanling. Packaging serves to bring into one unit a readily portable quantity of ıaterial which without a package would be very difficult to handle. Apples, ınned peas, poultry, eggs, and numerous other commodities difficult to handle 'ithout a container illustrate the point that packaging facilitates handling.

2. Packaging condenses bulky products like cotton, wool and hay into naller space, so that the costs of handling, transporting, and storing are ıereby greatly reduced.

3. Packaging serves to protect commodities from damage and deterioration. 'hus, for example, burlap baling material protects cotton and wool from disoloration and dirt.

4. Packaging preserves commodities and prevents shrinkage. Paraffine preents loss of moisture in cheese, while cans preserve fruits and vegetables from poiling.

5. Serviceable, convenient and attractive packages result in willingness on he part of consumers to pay higher prices because products packaged in this ıanner save time, money and effort. For instance, butter made in pound ›rints and packaged in cartons meets the needs of consumers more satisfacorily than tub butter. A premium is therefore willingly paid by consumers or print butter.

6. The cost of packaging varies greatly for different products. The charcter of the product itself and the size of the container are the main causes for hese variations in cost. Thus apple butter in barrels may involve a packging cost of only five per cent of a middleman's total expenses, while in glass ontainers packaging cost amounts to as high as 36 per cent of total expenses or the same concern.

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CHAPTER VI

PROCESSING FARM PRODUCTS

FARMERS produce raw materials primarily. To a relatively small extent it is true that cream is processed into butter, milk into cheese, and live stock into fresh meat by farmers. Processing or putting products into their consumable form upon farms has continuously become less and less important as agriculture has become more highly commercialized. The decline of processing on farms has been made possible because middlemen, whether privately or coöperatively employed, have demonstrated superior efficiency in rendering this service. Farm processing or finishing of raw materials is largely confined to regions where either production is sparse or consumption unusually dense. It persists as a practice in those places where middlemen cannot economically operate or where farmers are so numerous and farms so small that surplus time exists which it is desirable to utilize in this manner. Frequently farm processing provides a means of economically using time which would otherwise be lost.

Wherever the time of farmers is not wholly consumed to the best advantage by specializing in their farm operations, and where at the same time farm processing is the next most remunerative kind of work available, it is likely to continue in spite of the competition of middlemen. For most farmers, however, division of labor is more economical. This is shown by the fact that opposition to private creameries has resulted not in reversion to farm butter-making but in a change to coöperative creameries. As a general rule, antagonism to or

displeasure with the private marketing concerns which make cheese, can peas, condense milk, preserve fruit and process other products, does not react in the development of methods for finishing these raw materials upon farms. On the contrary the result is to substitute coöperatively employed middlemen for the former private middlemen. Obviously, therefore, farmers, even though they may not admit it, are convinced that processing is more economically accomplished by middlemen. Fortunately, there are ample facts and reasons to substantiate this conclusion.

Processing is a Necessary Service. — Regardless of whether processing is brought about by farmers or by middlemen, the service is essential for three fundamental reasons. (1) It is economical to have raw materials converted into finished products. (2) Economical distribution requires reduction of bulk to the minimum in relation to value. (3) It is economical to conserve the surplus output of flush producing seasons for consumption during periods when current production falls below consumer needs. To provide consumers with requisite kinds, quantities and qualities of food and clothing throughout the year necessitates processing by some one. For farmers the service is equally important because it stabilizes prices by preventing alternating glut and undersupply upon markets.

Processing Converts Raw Materials to Finished Products. — Meat and fish are estimated as constituting 35 per cent of the American family food budget. Farmers do not produce porterhouse steak, or pork chops, or dried beef or any of the other forms in which meat appears upon the consumer's table. On the contrary, they produce live stock, the raw material from which meat issues, as the principal product. To produce meat from live stock requires slaughtering, or one form of processing. This may be done by farmers, by consumers or by middlemen. Most consumers who are not at the

same time farmers obtain meats which have been processed by middlemen. Among the several kinds of middlemen who partially or completely render this service are local butchers, central abattoirs, local packing companies and centralized packing concerns. More live stock is slaughtered by the centralized meat-slaughtering establishments than by any other single method. Their costs in rendering this service are, therefore, more nearly typical than the costs of other slaughterers.

Costs of Processing Cattle into Beef. — According to facts presented in Table VII not less than twenty-three groups of expenses are involved in slaughtering cattle. It is interesting to note that the principal expenses according to these figures were for labor, administrative overhead, buying, icing, steam, power and refrigeration, supplies, depreciation, selling and teaming or hauling. In fact, these nine items account for 89.5 per cent of the total costs of slaughtering cattle and handling beef.

The establishment rendering the service of slaughtering in this case paid for cattle, $11.12 per hundred pounds live weight. The average live weight of 925 pounds dressed almost 53 per cent or 490 pounds of beef. Excluding the credit or selling value of the hide and by-products, the cost of this beef to the slaughterer was practically $21 per hundredweight. The beef sold for $17.37 per hundredweight, while the value of hide and by-products averaged $6.52 for each hundred pounds of beef. Thus the buying cost of beef in the form of raw material or live stock, plus the cost of slaughtering, was $21 per hundred pounds, while the income from all sources amounted to $23.90 per hundred pounds of beef. The difference between these two figures, or $2.90, is the operating margin of the middleman per hundred pounds of finished product. Total expenses of the middleman amounted to $2.62, including $1.21 for processing as shown in Table

VII, 71 cents for transporting beef and 70 cents for wholesaling or distributing beef upon the markets of the country.

TABLE VII. — COST PER 100 POUNDS CARCASS OF PROCESSING CATTLE INTO FRESH BEEF [1]

KIND OF EXPENSE	AMOUNT	PER CENT OF EXPENSE	PER CENT OF SELLING VALUE OF MEAT, HIDE AND BY-PRODUCTS
Labor	.343	28.3	1.44
General administration	.229	18.9	.96
Buying	.121	10.0	.50
Icing	.112	9.2	.47
Steam, power and refrigeration	.078	6.4	.33
Supplies	.062	5.1	.26
Depreciation	048	4.0	.20
Selling	.048	4.0	.20
Teaming	.043	3.6	.18
Repairs	.029	2.4	.12
Casualty	.019	1.6	.08
Administrative	.018	1 5	.08
Insurance and taxes	.018	1.5	.08
Yards (Railroad)	.012	1.0	.05
Freezer storage	.011	.9	.05
Storage	.004	.3	
Protection	.004	.3	
Insurance stock	.004	.3	
Laundry	.004	.3	.07
Express shipping	.001	.1	
Taxes, personal property	001	.1	
Advertising	.001	.1	
Miscellaneous	.001	.1	
Total	$1.211	100 0	5.07

From the summary on the following page the relative cost of rendering the service of processing is apparent.

That consumers required beef and not live stock made it necessary for some one to render the service of processing. Obviously the cost of this service, amounting to 5.07 per cent of total income from live stock products, had to be met.

[1] Stimulating Live-stock Products—Hearings before the Committee on Agriculture and Forestry, United States Senate, Sixty-sixth Congress on S2199 and S2202, Part I, p. 502.

COST OF SLAUGHTERING CATTLE AND DISTRIBUTING MEAT[1]

EXPENDITURE	COST PER 100 POUNDS DRESSED-WEIGHT BASIS	PER CENT
Cattle purchased	$21.00	87.88
Processing cost	1.21	5.07
Transporting cost	.71	2.96
Distributing cost (wholesale)	.70	2.92
Profit	.28	1 17
Total income from beef, hide and by-products	$23 90	100.00

Cost of Processing Wheat into Flour. — The annual per capita consumption of wheat and wheat products in the United States amounts to approximately six bushels of grain. Most of this is used as flour. According to statistics of the Milling Division of the United States Grain Corporation,[2] 1183 mills processed an annual average of 536,994,692 bushels of grain during the years 1914, 1915, 1916. From this quantity of wheat, 117,520,912 barrels of flour were made at a processing cost of 46.39 cents per barrel and a selling cost of 24.09 cents. This amounts to 11.6 cents and 6 cents respectively to cônvert one bushel and 8½ pounds of wheat into 48 pounds of flour and to sell it sacked.

Obviously, to have flour some one must convert the raw material, wheat, to the finished product. This involves a group of expenses which are well illustrated by the actual operating results of a mill during the year 1910–11, as shown in Table VIII. The mill made on the average a barrel of flour out of each 4½ bushels of wheat. At the time, the value of flour averaged $4 per barrel, and by-products credited to each barrel of flour brought $1.10. Wheat was $1 per bushel. Thus from $4.49 worth of wheat the mill by processing secured $5.10 worth of finished products. The dif-

[1] Same source as data in Table VII.

[2] Grain and Flour Statistics during the War, United States Grain Corporation, pp. 6–7.

TABLE VIII. — COST OF PROCESSING WHEAT PER BARREL OF FLOUR,[1] 1910–1911

KIND OF EXPENSE	AMOUNT	PER CENT OF EXPENSE	PER CENT OF SELLING VALUE OF FLOUR AND BY-PRODUCTS
Labor in mill	$ .124	29.02	2.43
Selling	.096	22.47	1.88
General	.062	14.51	1.22
Labor in office	.055	12.87	1.08
Fuel	.045	10.53	.88
Repairs	.023	5.38	.45
Insurance	.0143	3.35	.28
Interest	.008	1.87	.16
Total processing and selling	$.4273	100.00	8.38

ference, a margin of 61 cents, covered processing costs amounting to 42.73 cents and left a profit of 18.27 cents per barrel of flour. Summarized this account would be as follows:

COST OF PROCESSING WHEAT INTO FLOUR[2]

PAYMENT	AMOUNT	PER CENT OF SELLING VALUE OF FLOUR AND BY-PRODUCTS
For wheat (4.49 bushels @ $1)	$4.4900	88.04
For cost of processing	.3313	6.50
For distributing	.0960	1.88
For profit	.1827	3.58
Total income from flour and by-products	$5.1000	100.00

From these figures it is apparent that the cost of rendering the service of processing amounts to a substantial figure. This is necessarily so because labor and management combined with equipment and supplies are essential in changing wheat into flour and by-products. It is interesting to note

[1] U. S. Department of Labor, Bureau of Labor Statistics. Whole number 130. Wheat and Flour Prices from Farmer to Consumer, p. 40.

[2] Same source as data in Table VIII.

that the cost of processing wheat, including packages, amounted to 6.5 per cent of the income from flour and by-products, while that of processing cattle was 5.07 per cent of the income from beef, hide and by-products.

A recent investigation[1] indicates that it costs the majority of flour mills, excluding packaging expenses, less than 6.5 per cent of their income to process wheat. The average cost of converting 198,800,000 bushels of wheat into the equivalent of 43,146,000 barrels of flour and 1,786,000 tons of feed, by 128 mills, amounted to 4.7 per cent of the income from flour and by-products. The detailed expenses are indicated in Table IX. It required an average of 4.6 bushels

TABLE IX. — COSTS OF PROCESSING WHEAT PER BARREL OF FLOUR BY 128 MILLS[2]

1916–1917

KIND OF EXPENSE	AMOUNT	PER CENT OF EXPENSE	PER CENT OF SELLING VALUE OF FLOUR AND BY-PRODUCTS
Packages	$ .30	29.42	3.14
Selling	.27	26.47	2.82
Operating and repairs	.24	23.53	2.51
General	.13	12.74	1.36
Interest	.05	4 90	.52
Depreciation	03	2.94	.31
Total processing and selling	$1 02	100.00	10.66

of wheat to make a barrel of flour. The average profit in relation to costs of operation and the purchase price of raw material is brought out by the summary on the next page.

The private middlemen engaged in rendering the service of processing must obviously receive a total income which exceeds their costs. Otherwise they necessarily would be forced to withdraw their services and other means of processing

[1] Federal Trade Commission Report on Flour Milling and Jobbing. [2] *Ibid.*, p. 13.

wheat would have to be devised. In Tables VIII and IX the respective costs were 8.38 per cent and 10.66 per cent, margins were 11.96 and 13.91 per cent, while profits were almost the same — 3.58 and 3.45 per cent of income. The figures in Table VIII came from an efficient mill which processed 642,354 bushels of wheat. It paid 88.04 per cent of its income for wheat. The data in Table IX, on the other hand, came from 128 mills, each of which processed on an average only 155,250 bushels and paid but 85.89 per cent of their income for wheat. In this case the middleman having a large volume of business and greater efficiency in rendering the service of processing paid higher relative prices for wheat than did the average and less efficient middleman, although his profit was actually greater per dollar of sales.

Average Cost per Barrel of Flour to Operate 128 Mills[1]

Expenditure	Amount	Per cent of Income from Flour and By-products
Wheat (4.6 bushels @ $1.79)	$8.22	85.89
Packaging	.30	3.14
Processing	.45	4.70
Distributing	.27	2.82
Profit	.33	3.45
Total income from flour and by-products	$9.57	100.00

Cost of Processing Milk into Butter. — Almost one billion pounds of creamery butter are made and consumed in the United States annually. This is about ten pounds per capita. To have cream converted into butter requires that some one render the service of processing. Obviously, the economic conditions under which butterfat is produced have an important bearing upon the manner of making butter. Under the best circumstances costs of processing are much lower

[1] Same source as data in Table IX.

than where inefficient and efficient middlemen both persist in business to render the service. It should be emphasized that in many regions butterfat is produced in quantities too small to permit inexpensive methods of butter manufacture. Some idea of the costs of processing under different conditions may be gained from the facts in Table X. Processing costs averaged 9.3 per cent of the income of butter factories in regions like Kansas where butterfat is produced as a side line, 9 per cent in a state like Wisconsin where dairying is the specialty in farming, and only 3.35 per cent in the most efficient coöperative creameries.[1] These percentages include the cost of packaging, which amounts to a considerable figure. From these facts it is certain that there are great differences in the costs of processing. These differences are due largely to variations in volume of business per plant and to the character of management. In the cases shown, costs, however variable, were the results of local conditions under which the service of processing was undertaken and accomplished.

TABLE X. — COSTS OF PROCESSING CREAM INTO BUTTER

EXPENDITURE FOR	KANSAS CREAMERIES [2]	WISCONSIN CREAMERIES [3]	BARREN COÖPERATIVE CREAMERY [4]
Butterfat	73.9	85.9	94.35
Assembling	12.2	5.1	2.30
Packaging and processing	9.3	9.0	3.35 [5]
Distributing	1.8	—	—
Profit	2.8	—	—
Total income	100.0	100.0	100.0

[1] The same efficiency is developed by some private creameries, but the advantage is retained by them as relatively high competitive profits instead of going in higher prices to farmers. Hence the margin is not reduced even though certain private concerns are highly efficient.

[2] *Kansas Agric. Exp. Sta., Bul. 216*, p. 65.

[3] *Wisconsin Agric. Exp. Sta., Bul. 270*, cover page.

[4] *Barren Coöperative Creamery Annual Report, 1920, Barren County News-Shield*, Feb. 20, 1920, p. 1.

[5] Cost of processing in Barren Coöp. Creamery was 2.07 per cent and of packaging 1.28 per cent.

The actual cost of processing butter is only a part of the total expense of operating a creamery. Under the most favorable conditions during 1919 the necessary costs of processing alone were 1.93 cents per pound, while cost of assembling the butterfat was 1.33 cents. The various items of processing expense are shown in Table XI. Almost one half of the cost of making butter represented expenditures for necessary supplies, such as tubs, salt, color, and other items. Little more than a quarter of the expense was due to wages and salaries, while the remaining quarter was consumed by a number of small items, most important of which were ice and fuel.

TABLE XI. — COST OF PROCESSING CREAM INTO BUTTER[1]

EXPENDITURE FOR	AMOUNT PER LB. OF BUTTER, CENTS	PER CENT OF TOTAL EXPENSE[2]	PER CENT OF PROCESSING EXPENSES ONLY	PER CENT OF INCOME FROM BUTTER AND BY-PRODUCTS
Butterfat	54.56	—	—	94.35
Hauling cream	1.33	40.80	—	2.30
Packages	.74	22.70	—	1.28
Salaries and wages	.51	15.67	42.9	.90
Supplies	.21	6.44	17.7	.36
Ice and fuel	.20	6.14	16.8	.34
Freight	.07	2.14	5.9	.12
Electric power	.06	1.83	5.0	.10
Cartage	.05	1.53	4.2	.09
Taxes and insurance	.04	1.22	3.3	.07
Miscellaneous expenses	.05	1.53	4.2	.09
Total income	57.82	100.00	100.0	100.00

While consumers and farmers may feel that some one is exacting too much toll in the handling of the product, it is obvious that some one must change cream into butter. To do

[1] *Barren Coöperative Creamery Annual Report, 1920, Barren County News-Shield*, Feb. 20, 1920, p. 1. Creamery made 1,623,562 pounds of butter.

[2] Expense of 3.26 cents or difference between Income of 57.82 cents and payments for buttertat of 54.56 cents. Being coöperative, profits were paid in prices for butterfat averaging 7.94 cents or 14 per cent above butter prices.

this the costs of supplies, labor, power and other essentials must be paid. That these amount to a figure varying from 3.35 per cent to 9.3 per cent of what the middleman rendering the processing service receives for his finished product is significant. Middlemen process cream into butter at costs which compare very favorably with those of processing wheat into flour or cattle into beef.

Processing Saves by Reducing Bulk. — There are many products which can be grown in ample quantity but which are too bulky as raw material to be economically shipped to market. Moreover, there are other products which could be marketed with less expense were their bulk reduced previous to shipment. Numerous products formerly without markets on account of bulkiness and low value are now economically distributed to consumers. Take, for example, local transportation of milk to creameries. At one time practically all of the farmers hauled their entire output of milk to so-called whole milk creameries. After skimming by power separators and churning, farmers hauled their proportionate share of the skim milk and buttermilk home for feeding purposes. The system caused unnecessary duplication in the hauling of more than 80 per cent of the weight. The equipment and time to handle this tremendous quantity of raw material was saved by the use of the farm cream separator, a form of processing, which enabled farmers to skim cream efficiently. The same quantity of butterfat requiring a team and wagon to haul it to the creamery as whole milk, thereafter as cream was readily hauled by horse and buggy. Moreover, where cream haulers were employed, fewer were required than for hauling milk. This saving of time, equipment and other costs was made possible because farmers performed a processing service preparatory to hauling. That the farm separator, and hence processing, was valuable to farmers in this instance is a fact universally recognized. It has been demonstrated by the

disappearance of whole-milk creameries and the growth of cream stations and creameries.

Processing Enhances Value of Cotton. — One of the best examples of processing as a means of reducing unnecessary bulk is the ginning of cotton. Seed cotton is broken into three elements by ginning, of which lint or cotton fiber represent 27 to 35 per cent, cottonseed around 60 to 65 per cent and trash about 5 per cent of this weight.[1] When cotton prices averaged about 10 to 12 cents per pound, ginning and packaging (baling) costs were customarily $3.50 per 500-pound bale of lint, gross weight. Since packaging represents approximately 75 cents to $1 of the ginner's customary charge, actual ginning expenses were $2.50 to $2.75. At this rate the cost of processing seed cotton was less than 6 per cent of the average price obtainable for lint. The fact that substantially one-twelfth of the cotton crop is sold as seed cotton permits comparison of the returns for lint of the same quality sold ginned and unginned. Numerous samplings of bales of lint and of loads of seed cotton have demonstrated that the same cotton lint brings higher prices when ginned and both lint and seed sold separately than when lint and seed are sold together as seed cotton. In one instance 205 loads of seed cotton sold at an average price of $7.59 per bale less than the same grade of lint cotton. In another case 881 loads averaged $6.06 less.[2] The farmers who sold this seed cotton, had they invested $3.50 for the service of processing, could have received these higher prices. True, the ginning cost would have been $3.50. But after deducting this figure from $7.59 and from $6.06 the net increase in price for their cotton, due to processing, would have been $4.09 and $2.56 per bale, respectively, or more than one half cent per pound. By processing they could have added over one half cent to the average price received of 10.2 cents. Surely a net return

[1] U. S. D. A. Department Bul. 375, p. 5.

[2] *Ibid.*, Bul. 375, pp. 75–76.

equal to an increase of 5 per cent of prices received is worth while!

It is not realized that processing renders a service which is frequently required to make products salable at remunerative prices. With cotton the higher price can be readily justified because the bulk is largely reduced. Cotton buyers for mills or warehouses or for export do not want the seed or the trash. Their interest is confined to cotton lint only. Of course both lint and seed have value. Their aggregate value, however, is greater after separation than before. The service of ginning separates the raw material, so that buyers may purchase exactly what they desire without being obliged to purchase, transport, store and otherwise handle the seed which amounts to twice the weight of the lint. That such buyers succeed in finding what they desire without being obliged to handle other products saves them time and expense and justifies them in bidding higher prices. Aside from justifying higher prices through reduction of bulk, processing or ginning results in remarkable economies in transporting, storing, and handling costs after the product leaves producing sections. The fact that cottonseed amounts to twice the weight of the lint suggests at once that were processing not performed in producing regions, much greater bulk would have to be shipped by rail and steamship. Warehouses would have to be larger, more laborers would have to be hired, so that all along the line far greater costs would be involved than at present. That these heavier expenses are made unnecessary by the service of processing is obvious when once pointed out.

The costs of transporting, storing, and handling numerous other products which enter the commercial marketing system are reduced in a manner similar to those shown in the examples just described. Vegetables are dehydrated, fruits dried, eggs desiccated, and milk condensed. In each case the serv-

ice of processing is performed by some one because the result is economical. The processing of live stock into fresh and cured meats and of wheat into flour, both result in the reduction of raw material into less bulky but far more valuable form. While the cost of rendering the service is appreciable, nevertheless subsequent economy on the part of middlemen performing other essential marketing services is realized, which makes possible eventual reduction in the margin or difference between farmers' and consumers' prices.

Processing Conserves the Surplus. — Many products of the farm are highly perishable. Uncontrollable conditions of production cause inevitable seasonal surplus supply, requiring storage until later shortage of current production makes its use imperative. The service of processing changes the form of certain perishable surplus raw materials into finished products so that they may be enjoyed by consumers throughout the year. Virtually all canned foods, cured meats, bottled fruit juices, and preserved foods fall in this class of products.

Take, for example, the processing of lemons and oranges by the California Fruit Growers' Exchange. Surplus quantities of these fruits exist at various times, due to unusually large crops, over-ripeness, frost damage, or other conditions making them unfit for eastern shipment. By converting the surplus lemons into citric acid and citrate of lime loss is prevented and a portion of the crop which otherwise would have brought no return to farmers, is successfully marketed. Similarly, oranges too ripe for eastern shipment or otherwise unfit to market as fresh fruit are converted into marmalade and thus profitably held and eventually marketed. Were these surplus lemons and oranges not processed, complete loss would have been borne by farmers in lower average prices for their crop. Obviously, the cost of processing is justified in this case, because it results in a service benefiting consumers with a larger supply of citrus acid and farmers with higher average prices.

The Cost of Processing Green Peas. — Many wholesome articles of food are desired by consumers throughout the year which without processing would not be available. Canned corn, tomatoes, green beans and peas, and various fruits belong to this class of articles. Their availability depends directly upon the rendering of processing and packaging services. An idea of the expense of processing this sort of food products may be gained from costs of canning peas shown in Table XII. It is not often realized that the cost of the service of processing peas exceeds the value of the peas themselves, and that the value of cans and boxes utilized for holding the peas is the greatest single expenditure in a pea-canning factory. To provide consumers with peas during winter, and farmers with payment for their present output of the raw material in summer, requires that some one receive, shell, grade, cook and otherwise prepare peas for use by consumers. When middlemen do this work economically by commercial means, it is necessary to have factory buildings and equipment, adequate labor, packages, supplies, and management, all necessarily involving expenditures of the kind summarized in Table XII.

TABLE XII. — COST OF CANNING GREEN PEAS PER NO. 2 CAN [1]

SERVICE	AMOUNT, CENTS	PER CENT OF SELLING PRICE	PER CENT OF TOTAL EXPENDITURE	PER CENT OF COST [2]
Green peas	3.04	26.4	29 8	—
Packaging	3.39	29.4	33.1	47 3
Processing	3.20	27.7	31.4	44.7
Distributing	.58	5.0	5.7	8.0
Profit	1.32	11.5	—	—
Selling price	11.53	100.0	—	—
Total expenditure	10.21	88 5	100.0	—
Total costs [3]	7.17	62.1	70.2	100.0

[1] University of Wisconsin, *Agric. Exp. Sta., Bul. No. 327.*
[2] Cost refers to all expenditures except that for green peas.
[3] Excludes payment for green peas and profit only.

That the factory selling price of canned peas for 1,255,764 cases of No. 2 cans averaged $2.77 cents per case for the year 1919, which was $1.385 per dozen cans or 11.53 cents per can, was due to the fact that consumers are especially fond of green peas and willing to pay enough to get them. In fact the demand has been so great that existing factories have been unable to supply sufficient peas. High prices under these conditions have stimulated the establishment of new factories because profits have been large. Sooner or later the high level of profits will induce enough middlemen to enter the pea-canning industry to supply a quantity more nearly adequate to meet consumers' requirements. The point of emphasis, however, is not that profits are large or small, but that, contrary to popular imagination, consumers willingly bid high prices for peas which temporarily make high profits possible. High prices are due not so much to the size of profits as to the fact that many expensive services have to be met before the consumer can obtain his desired supply. These services are equally important if farmers are to be able to continue their present quantity production of peas. Eliminate the processing service and farmers would receive prices so low that pea production would necessarily be curtailed to the relatively small amount now grown for fresh green-pea consumption.

The fact that the profits of factories canning peas are high does not in any way reflect upon the value of the processing service. That the service provides both a supply of peas for consumers and a market for farmers makes it exceedingly valuable. So long as demand is great and supply short, high profits serve the practical purpose of stimulating the establishment of needed new factories. In fact, high prices have already stimulated certain groups of farmers to coöperate in employing their own middlemen to render the service of processing. Such coöperative middlemen follow the same

methods as the private canning concerns and if managed equally well make equally large profits. The only difference lies in the fact that the profits[1] go back to farmers in proportion to their respective contributions of green peas, rather than to those who provided capital irrespective of the quantity of raw material supplied. The significant fact is that the basic costs of processing and of packaging were approximately the same for both coöperative and private middlemen engaged in canning peas. So long as consumers want canned peas sufficiently to pay the price, and middlemen, whether private or coöperative, find processing the economical means of making supply available, it is certain that processing will continue to be an economical and essential marketing service.

Processing Costs Vary According to Product. — Careful examination of the various food products which consumers buy indicates that some represent raw materials which have been easily converted into finished products without the addition of other ingredients. Other foods are literally composite products derived from farms, tin-can factories, box factories, glass works, and other industries. Cost of processing peas

TABLE XIII. — COMPARATIVE PROCESSING COSTS IN PERCENTAGE OF SALES

Expenditure	Efficient Coöperative Creamery	Cattle Packing Plant	Flour Milling Factory	Pea Canning Factory
Raw material	94.35	87.88	85.89	26.4
Assembling	2.30	—	—	—
Packaging	1.28	—	3.14	29.4
Processing	2.07	5.07	4.70	27.7
Transporting	—	2.96	—	—
Distributing	—	2.92	2.82	5.0
Profit	—[1]	1.17	3.45	11.5
Total income	100.00	100.00	100.00	100.0

[1] Coöperative middlemen pay all profits to farmers in form either of higher prices or of patronage dividend, which amount to the same thing. Hence profit is included under raw material.

was 27.7 per cent of the price which the canning factory received for its finished product, while the cost of efficiently processing cream into butter amounted to only 2.07 per cent of what the creamery received for butter. The cost of processing other products varies between these two extremes according to conditions. The quality of the raw material and the kind and quality of finished product largely determine how expensive the processing shall be. Some idea of these variations may be gained from facts presented in Tables XIII and XIV.

TABLE XIV. — PERCENTAGE COST OF PROCESSING FRUIT

EXPENDITURE	CANNED FRUITS	JELLY AND PRESERVES	FRUIT JUICES	APPLE BUTTER	BARRELED FRUIT STOCK
Fruit	54.0	22.6	72.0[1]	47.8[1]	76.0
Sugar	6.5	31.4	—	—	9.6
Processing	18.5	15.0	17.1	16.2	4.4
Packaging	21.0	31.0	10.9	36.0	5.0
Storing (cold)	—	—	—	—	5.0
Total cost	100.0	100.0	100.0	100.0	100.0

In the last analysis the cost of a given quantity of products is of far less consequence than the certainty of securing the supply. The fundamental fact is that the service of processing must be rendered by some one in order that consumers may receive an adequate supply of finished products during the entire year. Owing to the seasonal variations in production and to the high degree of perishability, many farm products must be processed soon after harvesting to prevent either glutting consumer markets or deterioration and loss of the raw material. With other farm products processing reduces bulk and saves freight, warehousing, and handling costs. With the vast majority of farm products the service is essential because consumers do not make direct use of raw mate-

[1] Includes sugar.

rials. Yet raw materials for the most part are all that farmers produce. Processing converts them into finished commodities for which the consumer demand alone exists.

SUMMARY

1. Processing is the service which changes raw materials into the finished goods desired by consumers. Consumers do not want raw materials. Hence either farmers or middlemen must process farm products. Because farmers do not make flour, can fruit, slaughter live stock, make shoes, and all of the other finished articles which consumers desire, it is necessary to have middlemen do the work of processing.

2. The cost of processing varies greatly. These differences are due largely to the local conditions surrounding processing plants and to the relative efficiencies of their managements and laboring forces. For some middlemen expenses are very high; for others of greater efficiency expenses are comparatively small.

3. By having raw materials processed relatively near producing regions instead of near consuming sections great savings are effected in the costs of handling, transporting and storing. For example, condensed milk takes less space in freight cars and in storage warehouses than the whole milk takes from which it was made. Similarly dried milk powder takes still less space. Thus freight and storage expense is reduced.

4. Processing frequently increases the value of raw materials by separating them into their several parts. Thus cotton lint (fiber) and cottonseed are worth less per pound when sold before separation than they are when sold separately. As a rule, people will pay more for a commodity when they are able to secure exactly the kind and amount desired than when other material must be taken as a condition of obtaining that which is really wanted. For this reason processing (ginning) cotton enhances its value. Similarly processing increases the value of many farm products.

5. Many highly perishable products may be grown economically only during certain seasons of short duration. If consumers are to have commodities of this sort the year round and if farmers are to produce them in sufficient quantity to provide an all-year supply, means must be employed to conserve this perishable surplus until it is used. Processing accomplishes this purpose in the form of condensing, canning, preserving, dehydrating, drying, smoking, pickling, and in the many other phases of converting raw materials into finished products.

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CHAPTER VII

TRANSPORTING FARM PRODUCTS

ALL farm products which are not consumed on farms require local transportation of one kind or another, either to local markets or to shipping points. Furthermore, for all commodities in excess of local requirements, transportation from country points to terminal markets is essential. Because farmers and consumers generally have relations with concerns engaged in transporting commodities over local or long distances, they have considerable knowledge and appreciation of the economic importance of this service. As a rule, the public knows far more about transportation in its various phases than it knows about other middlemen and their services.

It is undoubtedly true that public roads place a measure of responsibility upon citizens requiring them to obtain and analyze a certain amount of highway information. As a result people are without question fairly well informed about local roads. Certainly the widespread interest in railway transportation and the experience of the Interstate Commerce Commission has not been without educational value concerning the economics of railway rates and services. In fact, the tendency to public reliance upon the Interstate Commerce Commission and other orderly means of dealing with railroads as middlemen stands out in sharp contrast to the unrest of the two decades culminating in 1887, in the creation of this body and its régime of regulation. The facts gained by these thirty odd years of public interest in the railroads as middlemen have at least given farmers and con-

sumers a fund of information to aid them in their thinking. Whether the experience with democratically controlled public highways and with Federal and State control of railways has been enlightening or not, it is certain that much remains to be gained both in local and long-distance transportation. From the standpoint of marketing products the farmer, middleman and consumer are interested in the available kinds of transporting services and in the rates charged. Especially are they concerned about the dependability and adequacy of railway service. Contrary to customs regarding other middlemen and marketing services, farmers perform for themselves an appreciable part of the total transporting required. Naturally their efforts are confined mostly to local transport over the public highway system.

Local Hauling Costs Five Per Cent. — The expense of hauling farm crops from farms to shipping points is one of the expensive steps in the marketing system. According to the results of an extensive investigation in which informants in 1894 counties gave facts it was found that local transporting cost 5.2 per cent of the value of crops marketed.[1] The variations in cost of hauling shown by figures in Table XV in-

TABLE XV. — COMPARATIVE COSTS OF LOCAL TRANSPORTING[2]

Product	Cost of Hauling in Per cent of Value of Loads	Product	Cost of Hauling in Per cent of Value of Loads
Corn	9.6	Peanuts	4.3
Barley	8.3	Wool	2.7
Oats	7.7	Cotton	1.4
Wheat	7.2	Hemp	1.3
Flaxseed	5.3	Hops	1.3
Rice	5.2	Tobacco	1.2
	. . . .	Average of 12 crops	5.2

[1] U. S. D. A. Bureau of Statistics, Bul. 49, p. 45.

[2] *Ibid.*, Bul. 49, p. 45.

dicate that crops of relatively low intrinsic value per pound like corn and barley were transported at much greater expense in proportion to value than the products of higher value per pound such as cotton and wool. Numerous studies of the cost of milk production have shown that the expense of hauling milk from farms to shipping points varies anywhere from 3.6 per cent to 8.3 per cent of the value, 4.5 per cent being generally a comparatively accurate estimate of average conditions.[1] In regions of dense butterfat production the cost of hauling butterfat to creameries amounts to 2.3 per cent of the value of finished products. Representative examples indicate that the cost of hauling hogs to shipping points amounts to not more than 2 per cent and probably averages about 1.3 per cent of the value, while cattle are driven to town at the trifling cost of approximately one fourth of 1 per cent of their value. Cost of handling hay, on the other hand, amounts to 4 to 10 per cent of its value, while for potatoes it takes 15 per cent of the value or more.

Improved Local Transportation Reduces Marketing Cost. — Because farmers are thoroughly familiar with their activities in hauling farm products to local consuming regions or to shipping points, they have little or no suspicion regarding this phase of the marketing problem. That they should as a rule manifest indifference concerning highway improvement is unfortunate, not only for the public as a whole but for themselves in particular. The possibilities for reducing the cost of marketing through improvement in the conditions of transporting from farms to local markets or shipping points are fully as great as those to be found in connection with the performance of other important marketing services. In general, improvements of a practical nature would be beneficial

[1] The Milk Question in New England, pp. 11-13; Milk Cost Survey of Maryland Council of Defense, p. 12; Report of Rochester Milk Survey, pp. 83 and 101.

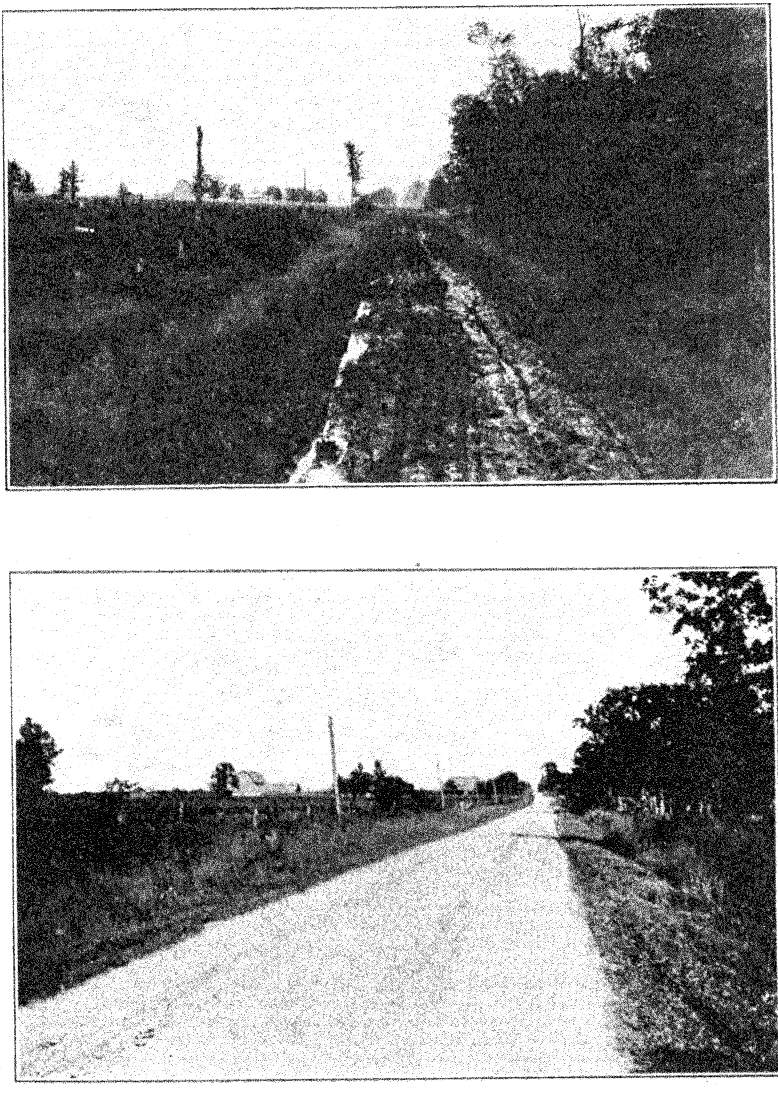

FIG. 18.— ROAD IMPROVEMENT MAKES HAULING EASY

Which road would you choose to haul wheat or cotton to town? Both pictures are the same highway, the upper before and the lower after improvement. (Courtesy Wisconsin Highway Commission.)

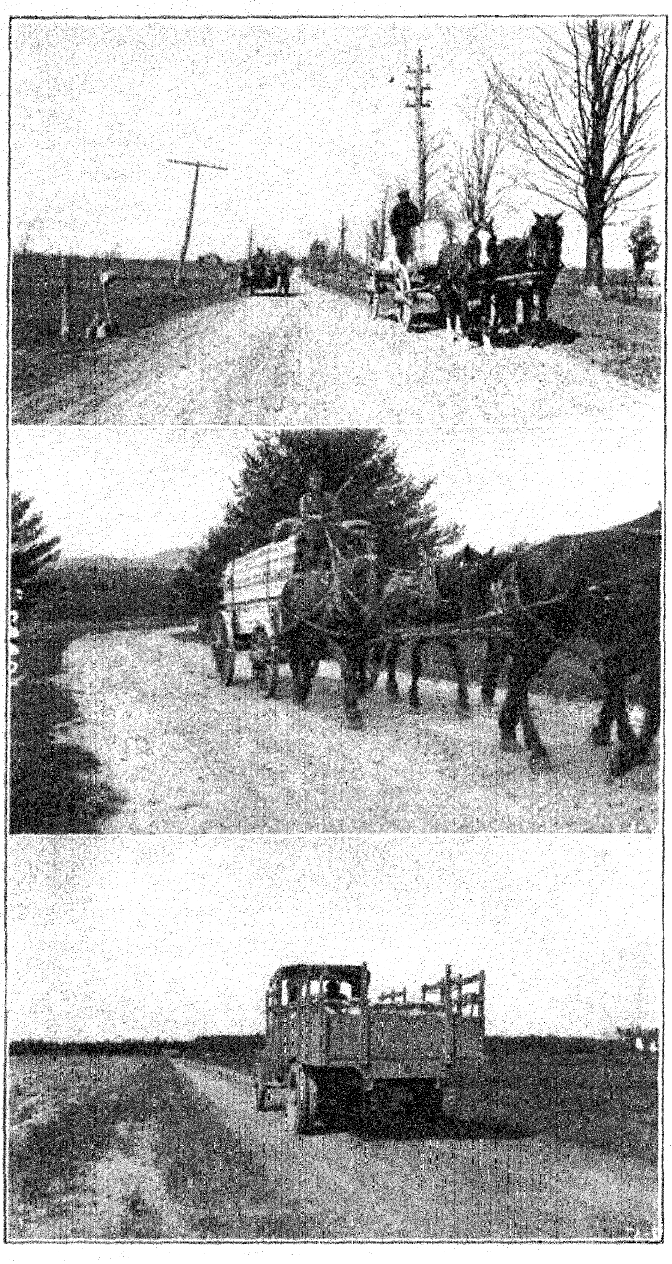

FIG. 19.—THE EFFECT OF ROAD IMPROVEMENT

Construction of good roads permits hauling of increased loads the year round. **It** also contributes to greater speed in hauling by the use of motor trucks. Either of these changes or both result in lower cost of hauling farm products. In the upper picture, showing a road before improvement, the average load was ten cans of milk, or only 1020 pounds. In contrast the improved roads in the lower pictures permitted heavy hauling. The maximum net load was 6300 pounds for the four horses and 50 cans of milk or 6000 pounds for the automobile truck. (**Courtesy** U. S. D. A., Bureau of Public Roads.)

by making it possible to haul larger loads at less cost per unit than present conditions permit. This result may be accomplished by using wagons or trucks having greater carrying capacity, by using larger and more powerful horses or engines, by increasing the speed of transportation, and by taking less time to load and unload.

Farmers haul loads which differ greatly in weight. Reliable data indicate that the average load of cotton is 1702 pounds, while that of wool is 4869 pounds or almost three times as heavy. Were the cotton farmer able to double the weight of his average load, it would cut the cost of hauling his crop nearly in half. Similarly with many other products hauling expense may be greatly reduced. Generally speaking, larger loads, greater speed, and reduced expense cannot be realized without extensive road improvement. Hard roads make hauling possible the year round, regardless of weather conditions. Thus farmers are enabled to transport their products without taking valuable time from other important duties.

Improved Roads Save Time and Expense. — Investigations of road conditions before and after improvement have demonstrated that, in spite of the high investment, hauling costs are thereby reduced. Roads located in eight counties of four states and improved at a cost of about $3,300,000 resulted in net savings of 11.6 cents for every ton of products hauled a distance of one mile.[1] During the year 3,489,652 ton-miles of traffic went over these roads. Before improvement costs of hauling averaged 33.5 cents, while after improvement they amounted to only 15.7 cents per ton-mile. The cost of maintenance, interest on the money expended for improvement and the annual share of the principal itself amounted to 6.29 cents per ton-mile. Thus the difference between poor roads and good after paying all costs resulted in a net saving

[1] U. S. D. A., Department Bul. 393, p. 8.

of 11.6 cents per ton-mile. Stated differently, by improving these roads the cost of hauling was actually reduced one third.

The value of improved roads is well illustrated by the experience of twelve farmers and dairymen during a period of three years. The average length of haul was determined at 5.73 miles. Before the roads were improved, the average load was 2,392 pounds for a two-horse team and only 1.92 trips were made in a day. After improvement the average load was 5,557 pounds per two-horse team and 2.63 trips were made daily. With a value of $4 for man and team, the cost of hauling 13.2 ton-miles over bad roads was 30.3 cents per ton-mile, while after improvement the same outfit hauled 41.8 ton-miles daily at a cost of only 9.6 cents per ton-mile. In this case the expense of local transporting was reduced by two thirds.[1]

Motor Trucks Increase Speed and Reduce Cost. -- Conditions in many regions are favorable to motor-truck transport between farms and shipping points. Where this is the case and roads are sufficiently improved, their use cuts the cost of hauling in half, as indicated by figures in Table XVI. According to these facts the main advantages of motor-truck

TABLE XVI. — COMPARATIVE COST OF HAULING BY WAGON AND MOTOR TRUCK[2]

Vehicle	Length of Haul, Miles	Round Trips per Day, No.	Load			Cost of Hauling per Ton per Mile		
			Corn, Bu.	Wheat, Bu.	Cotton, Bales	Corn, Cents	Wheat, Cents	Cotton Cents
Motor trucks, 1918 . .	11.3	3.4	58	84	6.6	15	15	18
Wagons, 1918	9.0	1.2	39	56	3.6	33	3	48
Wagons, 1906	9.7	1.2	39	55	3.4	19	19	27

[1] U. S. D. A., Department Bul. 393, p. 50.

[2] U. S. D. A., Monthly Crop Reporter, Oct., 1918, and U. S. D. A. Yearbook, 1919, p. 746.

hauling are derived from greater speed and heavier loads.[1] An excellent example of the value of improved roads is the experience of a certain farmer and dairyman. Being the owner of a creamery and also a condensery it was possible for him to make direct comparisons between the means and cost of transporting milk and cream over the same routes before and after road improvement.[2] Before the road was improved, three two-horse-team outfits were required to haul dairy products at a cost per 120-pound can of 20 cents for 15 miles. The cost per ton per mile was, therefore, 22 cents. After the roads were improved, the size of loads hauled was increased from twenty-five to forty cans and the cost decreased to 12.5 cents per ton-mile. Subsequently the substitution of a truck costing $1750 for the three two-horse team outfits was made and all of the hauling was done by truck. The new hauling cost was only 8.25 cents per ton-mile, figuring total expenses of operating the truck. Thus by road improvement costs of hauling by team were reduced from 22 cents to 12.5 cents or 43 per cent. Then by substituting a motor truck for three two-horse team outfits the 12.5 cent cost was further decreased to 8.25 cents, a further saving of 19 per cent on the original 22-cent cost. The total cost reduction, therefore, resulted in a saving to this man of 62.5 per cent of his former hauling expenses.

While a great many farmers may benefit from individual operation of motor trucks for purposes of local transporting, a far larger number cannot hope to do so. Many of them, however, may obtain the benefits of lower hauling costs by the formation of coöperative motor-truck routes or by patronizing privately developed motor-truck hauling systems.

Efficient Marketing Requires Improved Roads. — Local transporting services rank among the most important in the

[1] U. S. D. A., *Weekly News Letter*, Oct. 13, 1920, p. 1.
[2] U. S. D. A., Department Bul. 393, pp. 59–60.

marketing system. They represent one of the possibilities for great improvement. The first essential move toward the realization of reduced costs, however, lies in the authorization and construction of improved roads. Without better roads, larger loads and greater speed are not generally possible. Furthermore, motor-truck hauling at low cost is limited to regions of good roads. It is strange that a single marketing service such as local transporting almost wholly performed by farmers should remain so completely undeveloped, during a period when public criticism of other marketing services of no greater importance has been so searching and persistent. Transporting is one of the primary marketing services. That it should be performed in its local phases very largely by farmers does not relieve them of the responsibility, common to all who render marketing services, of performing their part efficiently. That local hauling is usually not efficiently rendered is obvious from the facts already presented. Efficiency and low costs in the future require road improvement as a fundamental step, along with improvements in the means of rendering other marketing services.

Six Per Cent of Value Taken for Freight. — It is conservatively estimated that $60,000,000,000 worth of commodities are hauled annually as freight by the railroads of the United States. Railroad freight revenues of about $3,500,000,000 represent approximately 6 per cent of the value of commodities transported.[1] Thus the costs of hauling farm products the long distance from shipping points to terminal markets amount to little more than the cost of hauling them the short distance between farms and shipping points. For products grown near consumers the proportion of their value absorbed by freight rates is less than 6 per cent, while for those produced at great distances from consumers more than 6 per cent is taken. Some farm products require protection from

[1] Fayant, Frank H.: *American Railroads*, Vol. I, No. 3, p. 4.

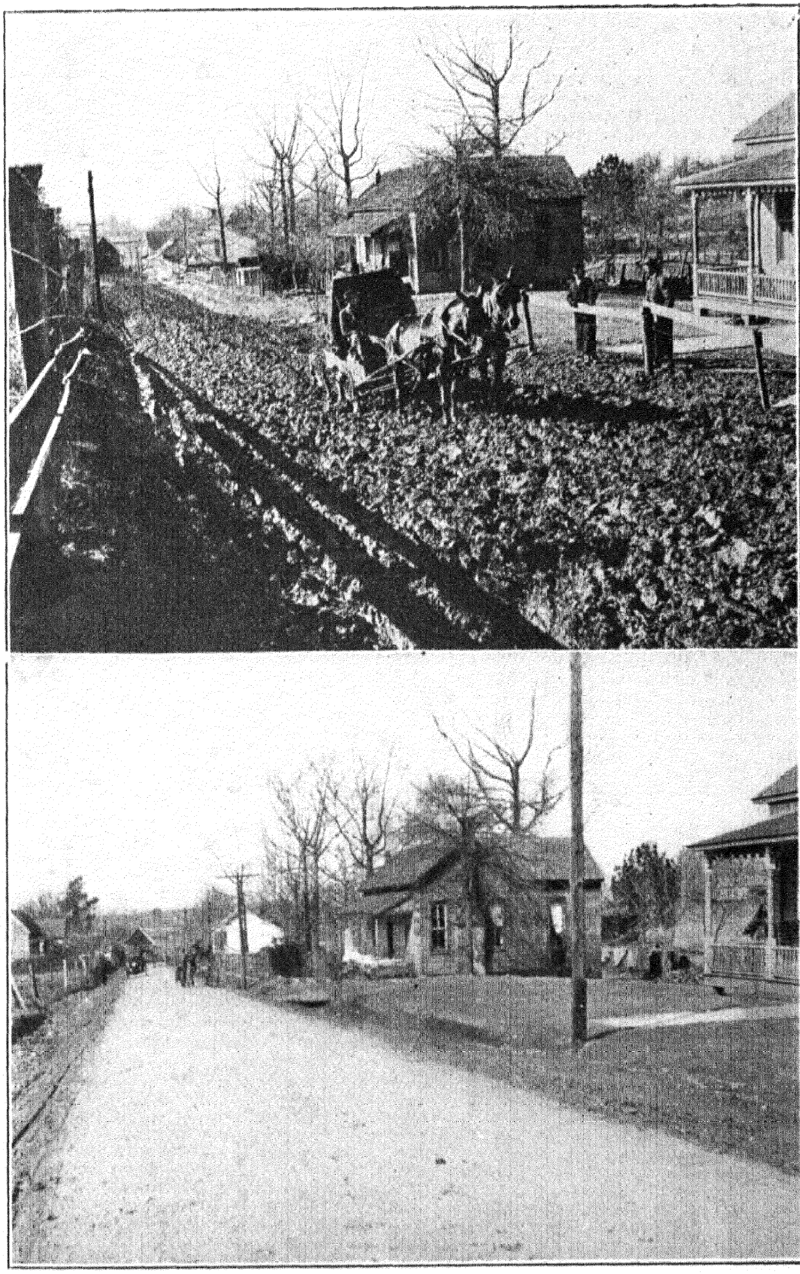

FIG. 20. CONSTRUCTION OF GOOD ROADS STABILIZES MARKETING

Many products are forced upon the market at certain times because hauling can be done at certain times only, due wholly to impassable roads. Both pictures are the same highway before and after improvement. (Courtesy U. S. D. A., Bureau of Public Roads.)

heat or cold while in transit, others do not. Certain kinds of highly specialized farming, for example citrus fruits and walnuts, are conducted unusually long distances from consuming regions. These necessarily occasion long hauls and higher freight costs. On the other hand, while certain crops or live stock are widely produced, a high proportion of the total output comes from specialized farming regions. Thus hogs and pork products, beef and beef products, and corn are peculiarly a surplus product of the corn belt and a very high proportion of the quantity turned out must be transported more than average freight-hauling distances in order to reach consuming centers. Consequently, the small average freight rate paid on dressed meats for the usual short haul is greatly increased for the bulk of meat shipments sent from the heart of the surplus meat-producing regions a thousand miles to the principal consuming sections. The same principle applies to the average cost of transporting flour relatively short distances as compared with the cost of shipping the surplus the longer distances to seaboard or to foreign markets. It is obvious, therefore, that many factors influence the cost of freight just as they affect the expense of local hauling by farmers. Bulkiness, high or low value in proportion to size or weight, perishability, necessity for protection from heat or cold, length of haul, character of package or container, and many other conditions influence the cost of rendering the service of transporting farm products. Briefly these numerous differences lead to the conclusions that the character of products transported and the location of consuming centers with reference to producing regions make necessary the performance of varying kinds and degrees of transport service. That the costs of transporting farm products are high or low comparatively is the unavoidable result of producing and marketing under different and constantly changing conditions.

Quantity of Farm Products Transported. — While farm products represent less than one eighth of the tonnage hauled as freight by American railroads, according to figures in Table XVII, their true relative importance is indicated by value and not quantity. Compare, for example, a minimum car load of thirty tons of coal valued at $20 per ton with a car load of 22,000 pounds of dressed beef valued at twenty cents per pound. The car of coal would have a value of only $600, while that of beef would be $4000 or more than six times as great. A car load of butter would be three times as valuable as the beef or twenty times as valuable as coal. A minimum car load of cotton is worth $4000 to $6000; of live stock, from $2000 to $3000; of wheat, from $1000 to $2000; of flour, from $2400 to $3000. The greater portion of farm products, excluding a few commodities like hay and potatoes representing only a small proportion of the value of agricultural freight, make up for the lack of quantity of weight by the very high intrinsic value and relative perishability which necessitate special facilities, handling and protection during transit. Thus refrigerated or heated cars are required for hauling numerous farm products, while coal, ore, and numerous bulky nonperishable products do not require this higher-priced service.

TABLE XVII. — COMPARATIVE RAILWAY TONNAGE OF FARM PRODUCTS — 1918 [1]

PRODUCTS	NUMBER OF SHORT TONS	PER CENT
Products of miners	734,790,653	58.2
Manufactures	176,197,263	13.9
All farm products	156,000,394	12.3
Products of forests	97,042,938	7.7
All other freight	99,031,942	7.9
Total tonnage	1,263,063,190	100.0

[1] U. S. D. A. Yearbook, 1919, p. 745.

Almost three fifths of the farm products handled by railroads are grain, fruit, vegetables, and live animals. The relative quantities of other products transported are shown in Table XVIII. The cost of transporting these products naturally differed greatly because of the wide variations in product, distance, and service involved.

TABLE XVIII. — RELATIVE TONNAGE OF FARM PRODUCTS HAULED AS FREIGHT — 1918[1]

PRODUCT	NUMBER OF SHORT TONS	PER CENT
Grain	55,866,640	35.8
Fruit and vegetables	18,735,809	12.0
Live animals	17,257,034	11.1
Flour	10,587,769	6.8
Hay	8,239,412	5.3
Sugar	4,204,165	2.7
Dressed meats	3,713,766	2.4
Cotton	3,550,117	2.3
Hides and leather	1,302,754	.8
Tobacco	1,159,572	.7
Poultry, game and fish	1,154,040	.7
Wool	493,651	.3
Various grain products	8,630,062	5.6
Various packing-house products	3,510,231	2.2
Miscellaneous animal matter	8,338,483	5.3
Miscellaneous vegetable matter	9,256,889	6.0
Total tonnage	156,000,394	100.0
Tonnage of animal matter	35,769,959	23.0
Tonnage of vegetable matter	120,230,435	77.0

Freight on Grain and Grain Products High. — Grain represents more than one third of the total farm products hauled by railroads, wheat being the most important single crop. Various investigations have shown that the cost of freight on wheat from producing regions to terminal markets and to mills amounted to approximately 7 cents per bushel.[2]

[1] U. S. D. A. Yearbook, 1919, p. 745.

[2] U. S. Dept. of Labor, Bureau of Labor Statistics, Whole No. 130, Series No. 9, p. 27.

When prices were approximately $1 per bushel for domestic consumption, freight therefore took about 7 per cent of the value. For that portion of the crop which was exported rail and ocean freight combined was 15 cents or approximately 12 per cent of the delivered price of $1.17 at Liverpool.[1]

The shipment of flour from principal milling sections to regions of important consumption approximated 25 cents per 100 pounds and 51 cents per barrel when flour prices were respectively $2.50 and $5. At these rates freight took substantially 10 per cent of the wholesale value of flour and 9 per cent of the retail value.[2] It should be noted that grain and flour are both relatively bulky products, so that each dollar's worth requires more space in vehicles of transport than is true of less bulky and more valuable commodities such as meat or butter. It is significant that both local and terminal hauling of wheat are relatively high, the former taking 7.2 per cent of the value and the latter 7 per cent, while in addition flour bears a further freight cost of 10 per cent of its value.

Heaviest Freight Cost for Fruits and Vegetables. — The cost of transporting the bulky farm products like vegetables and fruit takes a high proportion of their value. The cost of transporting potatoes varied from 8 to 10 cents per bushel for which farmers received 25 cents. Thus transportation to primary markets alone amounted to 32 per cent of the farm value, 16 per cent of the wholesale value and more than 10 per cent of the retail value of potatoes.[3] It is even more expensive to transport cabbages, the cost of freight and icing amounting to 60 cents per hundredweight or from 20 to 30 per cent of the wholesale value of $2 to $3 per hundred

[1] House of Representatives, 63d Congress, 3d Session, Document No. 1271, pp. 4 and 28.

[2] U. S. Dept of Labor, Bureau of Labor Statistics, Whole No. 130, Series No. 9, pp. 28 and 50–51.

[3] Wisconsin Exp. Sta. Bul. 256, pp. 29–33.

pounds. Since farmers received for these cabbages $1.30 per hundredweight, freight amounted to fully 46 per cent of the farm value.[1]

With a more concentrated and valuable product like onions the cost of transport is relatively less than for either potatoes or cabbage. When the price of onions per hundred pounds was $1.30 to farmers, $2.35 to retailers and $3.50 to consumers, freight was 12 to 14 cents. Thus transporting cost was equal to 10 per cent of the farm value, 5.5 per cent of the wholesale value and only 3.7 per cent of retail value.[2] In part, this lower cost was due to shorter hauls made possible by the proximity of extensive consumer markets.

Where unusually long hauling is combined with a highly perishable product, as is the case with citrus fruits, the cost of transportation is exceedingly high. Thus the California citrus fruit-growers, even though selling their fruit in a most economical and systematized manner, are obliged to pay transporting costs equivalent to 75 per cent of the amount farmers received. Approximately 30 per cent of the wholesale value of citrus fruit and 20.5 per cent of the retail value was taken for transporting services.[3] While citrus fruits represent farm products bearing the heaviest freight burden, onions represent bulky goods for which freight cost is relatively low. Transporting costs for the majority of vegetables and fruits fall somewhere between these two extremes.

Small Freight Cost for Live Stock and Meat. — One sixth of the agricultural freight tonnage according to facts in Table XVII represents live animals. The average cost of freight on live stock, determined by a compilation from the records of 60 to 65 per cent of the railroads of the United States, was 13.3 cents per hundred pounds during a period when cattle

[1] Colorado Agric. Col. Ext. Bul. Series 1, No. 163A, pp. 14–17, 23, 24.

[2] Mass. Agric. Exp. Sta. Bul. 169, pp. 102, 117.

[3] *The Western Fruit Jobber*, April, 1915, p. 25.

and hog prices ranged from $5 to $10 per hundredweight.[1] During the same period wholesale beef and pork prices varied from $9 to $14 per hundred pounds, while the freight costs were 15.3 cents per hundredweight. Thus the cost of transporting live stock by rail averaged from 1.33 to 2.66 per cent of the value, while for dressed meat it averaged only 1.1 to 1.7 per cent of the value. More recently, when prices of dressed meat varied from $20 to $25 per hundredweight, the cost of freight from the meat-producing regions to the consuming centers amounted to ⅔ cent per pound or from 2.7 to 3.4 per cent of the value.[2] Compared with transporting costs for grains, fruits or vegetables, those for live stock and meats seem very low. The difference is largely due to the greater intrinsic value of meats and live stock in proportion to their bulkiness. Meats and other animal products are for the most part highly concentrated in comparison with most vegetable products.

Cost of Transporting Milk. — Milk is produced under so many conditions and at such varying distances from consumers that transporting costs inevitably differ greatly. For the country at large only a relatively small proportion of the total milk produced requires rail transportation. That which does reach the consumer by rail may have been hauled but a few miles or it may have come hundreds of miles. New York City furnishes an example of a milk supply assembled from distant points by rail. There the cost of freight averaged about one cent when retail prices to consumers were twenty cents per quart.[3] Thus the service of transporting cost 5 per cent of the retail value. It was equivalent to fully 10 per cent of what the farmer received for milk. Various other investigations have determined that milk transporting

[1] U. S. D. A., Office of the Secretary, Rept. No. 113, pp. 29–30; U. S. D. A., Yearbook, 1913, pp. 466, 481, 483, 486.

[2] *American Railways*, Vol. I, No. 3, p. 4.

[3] Report of the Fair Price Milk Committee of the City of New York, p. 16.

costs vary from 1.6 to 12.3 per cent of the farm value or from less than one per cent to more than 6 per cent of the retail value.[1]

Cost of Transporting Butter is Low. — In contrast with milk, most butter requires rail transport before reaching consumers. For butter produced in a representative dairy state like Wisconsin, the cost of freight to the primary market amounts to 3.4 per cent of the retail value.[2] Butter produced in Kansas, a region more distant from consumer markets, bears higher relative transporting costs. Thus freight and icing costs on butter shipped from Kansas amounted to 9 per cent of the farm value, 6.7 per cent of the wholesale value, and 5.1 per cent of the retail value.[3] The usual freight cost of hauling butter is not more than one-half of the average freight cost of all products handled by railroads.

Cost of Transporting Cotton and Wool. — In domestic shipments of cotton, the usual freight rates approximated 65 cents per hundred pounds in a state like Oklahoma and 30 to 35 cents in a State like North Carolina when cotton prices were $10 to $12 per hundredweight. Transporting services between shipping points and primary markets, therefore, amounted to 2.5 to 5.4 per cent of the wholesale value.[4] For export cotton the expense is still greater, rail and ocean freight of $1 being 8.33 per cent of the delivered value in Liverpool.[5] Cotton, like butter and other of the more valuable farm products, is transported at a cost usually far below the average cost of all freight.

Wool also is transported at a relatively low cost in compari-

[1] Maryland Council of Defense, Milk Cost Survey, pp. 10–11; The Milk Question in New England, pp. 16–17; Investigation and Analysis of the Production, Transportation, etc., of Milk and Cream in New England, pp. 30, 33; University of Wisconsin, Agric. Exp. Sta. Bul. 285, pp. 47–48.

[2] University of Wisconsin, Agric. Exp. Sta. Bul. 270, p. 67.

[3] Kansas Exp. Sta. Bul. 216, p. 65.

[4] U. S. D. A., Department Bul. 476, p. 15, and Bul. 36, p. 25.

[5] U. S. Dept. of Commerce and Labor, Cotton Tare, pp. 35, 37.

son with many farm products. During 1919 when wool brought the farmers of Iowa and other states an average of 62 cents per pound the cost of freight amounted to 1.3 cents or only 2.1 per cent of the value.

What is the Aggregate Cost of Transporting Services? — If farmers are to have markets and if consumers are to have farm products indispensable to them, transporting services must be rendered by some one. These may be rendered wholly by farmers or entirely by middlemen. As a matter of fact they are performed in part by both farmers and middlemen. Just what proportion of the consumer's price for all finished products is taken to cover the cost of local and long-distance transporting would be impossible to say. As a rule farm raw materials are hauled to shipping points but once at an approximate cost of 5.2 per cent of their value. From the local point they are sent by freight to terminal or primary markets at a further cost of about 6 per cent of their value. Hence the great bulk of products which enter commercial channels and flow beyond the local market bears a total transporting cost of not less than 10 per cent of their value. Very rarely does this cost fall below 5 per cent, and it is usually 10 per cent or more. Certainly in numerous cases reshipment from primary markets is necessary and the expense of transportation accordingly is increased above the average. For highly perishable products the combined cost of local and long-distance hauling frequently exceeds the amount received either by farmers or by retailers as their respective shares of the consumer's dollar. That such products continue to be shipped by freight indicates that both farmers and consumers regard the transporting service as essential to their welfare. The farmer demands car space and the consumer pays a price which, if not all that producers would like, at least meets their hopes sufficiently to result in the production and transporting of enormous

supplies. In spite of all the variation in costs and of the seriousness of transport problems, the significant fact remains that the service of transporting is itself a fundamental part of the modern commercial system.

SUMMARY

1. All farm products except those immediately consumed on farms require local transporting. The cost of hauling from farms to shipping points averages fully five per cent of the value of crops. Variations in these costs are great, however, ranging from about two per cent of the value of butter to more than nine per cent of the value of corn.

2. Reduction of the cost of local transporting hinges upon construction of good roads which will permit all-year hauling of larger loads at greater speed. Larger wagons with stronger teams and motor trucks contribute to cheaper hauling, provided good roads are built.

3. While only one eighth of the freight tonnage of American railroads represents farm products, much of these commodities are of high value and require special service in the form of refrigeration and rapid transit. Value of products transported and not volume signifies the relative importance of the railroads to agriculture.

4. A very high proportion of commodities consumed are first transported by railroad at a cost averaging six per cent of their value. Length of haul, intrinsic worth in relation to bulkiness, perishability and other factors vary with different products; hence the cost of freight ranges from 46 per cent of the farm value of certain bulky vegetables to scarcely more than one per cent of the value of dressed meat.

5. More than ten per cent of the value of farm products is taken on an average to meet the expense of local and of long-distance transporting services. A great deal of improvement in this service is possible, especially in connection with local highways, which would appreciably reduce the costs of hauling. Probably as much reduction in the cost of marketing may be made here as anywhere in the entire marketing system. Farmers have much to gain by appreciating this point sufficiently to stimulate constructive road improvement.

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CHAPTER VIII

STORING FARM PRODUCTS

AGRICULTURE is an industry in which crop production necessarily results in periodic harvests or in fluctuation of supply due to seasonal growing periods of limited duration. Fortunately farmers are able to make the soil yield more in quantity than it is possible to consume without waste during the period while products mature and are harvested. But just as surely as there is a plentiful or surplus supply at harvest time or during periods when crops, fruits, and other products are maturing, consumers would be without food and raw materials during winter and spring, if the excess portions of these raw materials were either entirely consumed or wasted during the seasons of plenty. The holding of surplus supplies from periods of plenty for use during seasons of little or no production is one of the most fundamental services known to human as well as animal ingenuity. Bees and squirrels are well known for their industry in storing for themselves a winter supply of honey and nuts during the summer and fall. The beaver also is noted among trappers for its energy and persistence in laying in a bounteous supply of cottonwood and poplar saplings for winter consumption when the ice prevents the acquisition of fresh cuttings.

Service of Storing Universally Needed. — From the most ancient times the storing of food has been an earmark of the degree of civilization. Barbarians have lived from hand to mouth through countless ages while civilized man has laid up against the day of natural scarcity a "nest egg" from the periods of plenty. From the time that Joseph was made

ruler over the food warehousing system of Egypt by Pharaoh to the present day, the service of storing has become increasingly important in the progress of economic life. Without the holding of grain and other foods from summer and fall to winter and spring neither live stock nor people could be maintained through the winter, and modern life as we know it would be impossible. Without the service of storing, man living in the temperate zones would have to be capable either of hibernating like the bear, of migrating like the song-bird and the waterfowl, or else cease to live at all. Strange to say, modern people have apparently lost nearly all comprehension of this universal principle. Instinct compels the squirrel, the bee and the beaver to guard personally against the scarcity of winter by storing an adequate reserve of food. Countless ages of human experience taught man in the early stages of civilization to apportion individually some of his summer bounty for use during the nonproductive winter that always followed the harvest. As in Joseph's dream of seven fat years to be followed by seven lean ones, so throughout the progress of civilization intelligent man has increasingly realized the necessity of adequate storing. But unfortunately, the commercialization of production, by figuratively separating the former individual who was both consumer and producer into two separate individuals, has also severed the contacts and responsibilities formerly leading to a proper appreciation of storing. In the twentieth century the storing in summer and fall of an adequate supply of foods and other agricultural raw materials for use during the rest of the year is left to the judgment of specialists who may or may not be what the name should simply. With this responsibility recognized and assumed by a mere fraction of the population instead of by all of them as in a former time, it is no wonder that misunderstanding and resulting condemnation should be the order of the day.

The whole process of storing is clearly understood by the person who produces a periodic surplus which he can store directly and then consume at a later time in accordance with his needs. Such an individual deliberates upon the policy of storing and draws the line between excessive present consumption and resulting future scarcity by planning an apportionment in direct ratio to the needs during his entire consuming cycle or year. The enforcement of his plan, and hence the actual storing of the desired allotment, weighs heavily upon this individual through a feeling of responsibility that greater present satisfaction gained by larger immediate consumption must be foregone in favor of use later when otherwise severe want in the form of privation and intense misery would be more irksome than to practice prudent saving in time of plenty.

Commercial Storing Induced by Profit. — When storing is not done directly by the individual after the manner just described, but is accomplished by specialized commercial agencies motivated by a desire for private profit, certain forces if misunderstood, as they are almost universally, unavoidably lead to charges of profiteering and to widespread condemnation. The reason is not hard to find. In a commercial system prices are the most dependable control over the rate of current consumption during periods of scarcity. In the season of oversupply, on the other hand, the excessive quantities of goods available depress current prices, which in the absence of forces devoted to storing, would inevitably promote serious overconsumption and extreme waste. Under the commercial system two parties do what one party formerly did under the self-sufficing system. That the same general result is ultimately accomplished does not mean, however, that this result is brought about in the same way. The difference lies in the fact that relative values of goods induce or discourage storage operations by the commercial middleman, while future

necessity individually measured and realized determines the extent of storing by the self-sufficing consumer-producer. Since the difference in relative, prospective values between summer and winter provides the only economic opportunity for profitable storing, the middleman who renders this service, and must pay in advance for all goods stored without knowing what they will ultimately be sold for, finds by experience that he must wait until after the accumulation of surplus supply upon the market has depressed prices if he would reserve and store at "safe" prices the normal amount required for winter use. Because the low summer prices increase current consumption beyond the average, it has not been possible for private middlemen to store in summer an amount sufficient to provide the average monthly consumption throughout the winter.

Ideal handling of the surplus output during certain seasons would require private middlemen to purchase the entire surplus as it begins to accumulate. Just how large or how small the surplus is at any time is difficult to determine without accurate supply and demand facts both for present and for future uses. Prices are the outcome of facts of this kind. Since adequate facts are not available, it is virtually impossible for private middlemen to stabilize conditions by attempting to fix prices any more than for them to attempt to do so by merely storing some given quantity. The problem of price stability is a task of cutting patterns of production to meet those of consumption. When private or any other kind of middlemen are unable to get these two patterns, manifestly it is difficult, if not impossible, to cut them to match nicely and without causing fluctuating prices. It should be realized that most businesses must pay all expenses and earn some profit if they are to persist. Buying products conservatively, or in other words, "playing safe" in the purchase of products, for storage, to be held and sold later, is inherent to any

scheme which must stand or fall on the extent to which profit is made. Unless private middlemen who now render this storing service are able to make a profit in the long run, they must cease to operate. Their weakness lies in the fact that "playing safe" results in too great a recession in prices before commodities are purchased for storing. Better organization which makes unnecessary the sale of surplus products by farmers until these products are needed by consumers is the surest solution of this problem. This, however, calls for organization which does not exist to any extent. Constructive effort demands that the time now spent in criticism of the private middlemen be spent in creating organizations capable of storing and stabilizing prices.

While it is apparent that the storing of farm products under present conditions does not stabilize prices perfectly nor does it entirely prevent glutting or undersupply of markets, nevertheless this service even as now rendered accomplishes far-reaching economic purposes in the interests of all concerned. Storage facilities adapted to the character of products held have been established throughout the country in many forms. Thus there are protected warehouses designed for the control or regulation of temperature and humidity, these being utilized for the more perishable products such as meats, eggs, cheese, butter, and similar articles. Then there are numerous varieties of warehouses utilized for cotton, potatoes, grain, wool, hides, and skins and the many other farm commodities. The holding of products by means of storage facilities is undertaken by middlemen for the simple reason that the need for products in seasons of short production is sufficiently widespread and insistent to result in a margin of gross profit large enough to pay for all expenses and provide a profit. It is not always realized that prices charged by competitive middlemen, such as retailers, stand at a given level because consumers are anxious to secure an adequate supply

of products the year round, an accomplishment which depends upon the performance of the service of storing by other middlemen. Prices which seem high in reality may appear low when the number and character of contributing services are fully appreciated.

Storing Adjusts Supply to Consumers' Needs. — Because production results in periodical surplus and deficit while consumption is relatively uniform, the primary economic benefit of storing is that it aids in adjusting variable supply to the relatively constant needs of consumers. The extreme variations in production are well illustrated by data compiled for cheese, eggs, dressed poultry and apples, shown in Table XIX, for butter in Table XX, for wheat in Table XXIII, and for cotton in Table XXIV. In contrast with the seasonal fluctuation in supply of butter, wheat, and cotton, the uniformity

TABLE XIX. — VARIATION IN PRODUCTION OF CHEESE, EGGS, POULTRY AND APPLES

MONTH	CHEESE PRODUCTION IN PER CENT [1]	EGG PRODUCTION IN PER CENT [2]	DRESSED POULTRY PRODUCTION IN PER CENT [2]	APPLE PRODUCTION IN PER CENT [3]
January	3.9	3.2	10.4	7.8
February	4.2	7.1	5.9	8.0
March	6.7	13.5	5.6	6.4
April	7.7	16.6	4.6	4.1
May	12.4	15.3	4.9	2.4
June	15.8	14.8	6.0	.8
July	12.6	7.8	3.3	2.2
August	11.0	7.8	5.1	4.8
September	9.3	4.9	4.6	8.3
October	8.2	4.1	6.3	25.9
November	4.6	2.6	16.1	17.6
December	3.6	2.3	27.2	11.7
Total	100.0	100.0	100.0	100.0

[1] Data from U. S. D. A., Bureau of Markets, *Market Reporter*, Vol. I, No. 14, p. 214.
[2] *Ibid.*, weekly issues on unloads at five markets.
[3] *Ibid.*, Vol. I, No. 23, p. 361. Unloads at ten cities.

of their consumption as indicated in the tables is indeed striking. If consumers are to enjoy a variety of food and other commodities throughout the year while farmers harvest and dispose of their crops and live stock in periods of alternating plenty and scarcity, storing must be performed by some one between farmers and consumers.

Consider the relation of storing to the production and consumption of butter.[1] "The vast majority of small creameries, turning out more than half of the creamery butter of the country, have not developed adequate or efficient methods of selling their butter. Undoubtedly one cause for this condition has been the small average volume of butter made by them. Receiving butterfat from farmers in amounts which vary monthly from three fifths to more than one and a half times the average monthly production for the year, small creameries, having no inclination nor facilities to store their output, have been accustomed to sell it at once. Since they have not themselves found the retailer to whom most butter goes before reaching consumers, a group of middlemen known as wholesale receivers has come into the field to specialize in finding buyers for the output of the small creameries. These wholesalers receive butter from the creameries in large or small amounts according to the months in which creameries make large or small quantities. But in selling butter, wholesalers are unable to dispose of as large quantities in the summer as they receive. This condition is unavoidable because consumers eat butter in about the same quantity the year round, while farmers and creameries produce the butter chiefly in the summer. (See Fig. 23.) The consumer does not buy butter except as he uses it. The retail store caters to the consumer, and since it has no facilities for storing any important quantity of butter, it is obliged to buy only such amounts as it can sell within a few days or a week. The wholesaler,

[1] Kansas Exp. Sta. Bul. 216, pp. 56–63.

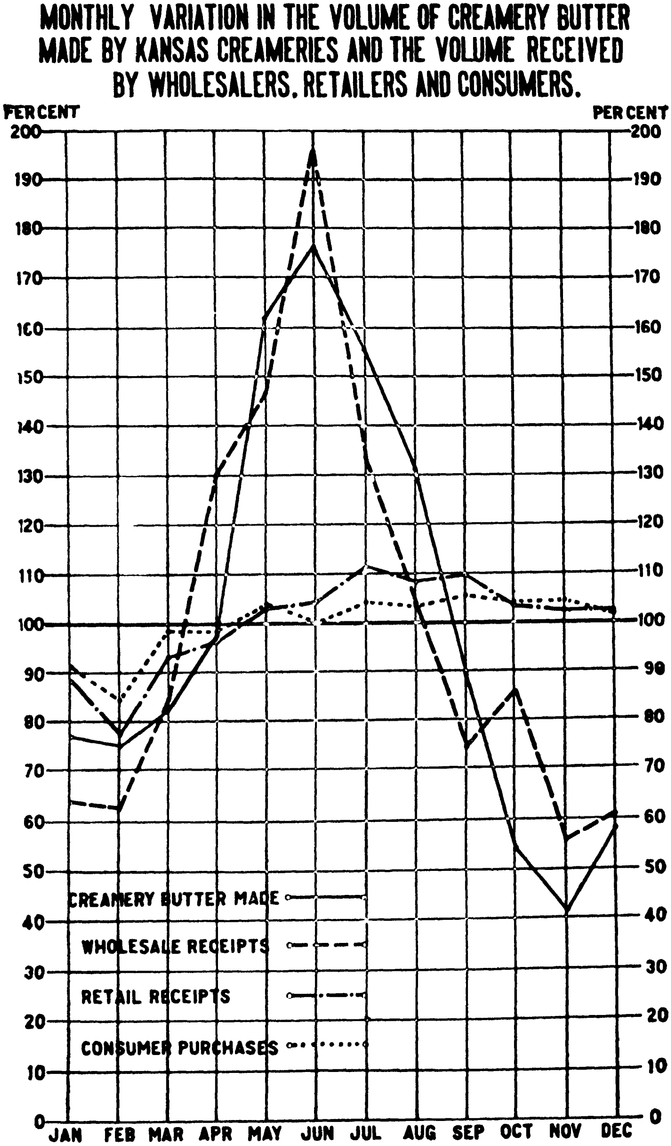

FIG. 23. — THE PATTERN OF BUTTER PRODUCTION AND CONSUMPTION

The solid black line indicates production of creamery butter varying from two fifths to one and three quarters times the average monthly output. In contrast to this, the dotted line indicates consumption of creamery butter varying from seven eighths to one and one twentieth of the average monthly consumption. In other words, fluctuation in production in different months is four times as great as for consumption. It means that storing is essential if consumers are to have butter in winter and farmers to have markets in summer. This storing, according to the chart, is not done by creameries, retailers or consumers, but by wholesale middlemen or specialists in storing. (Courtesy Kansas Station.)

TABLE XX. — PRODUCTION AND CONSUMPTION OF CREAMERY BUTTER

MONTH	PRODUCTION IN PER CENT[1]	CONSUMPTION IN PER CENT[2]
January	6.1	7.6
February	5.2	7.0
March	6.4	8.2
April	8.0	8.2
May	12.2	8.6
June	14.0	8.4
July	12.3	8.7
August	10.0	8.6
September	8.1	8.8
October	6.9	8.7
November	5.3	8.7
December	5.5	8.5
Total	100.0	100.0

therefore, finds himself between two situations which do not match together. He is obliged to make them fit as best he can. His success depends on his ability to find markets and to induce the buyers in these markets to consume more or less butter according to the season. His understanding of the consumer is that rising prices result in smaller and fewer purchases. Lower prices, however, induce the consumer to buy and eat more butter. The wholesaler also knows that while more butter is produced in the summer than consumers will pay profitable prices for, much less is produced in the winter than is required to meet the needs of consumers. His task, therefore, is not only to sell butter but to sell it in such a manner that it will not be wasted in summer. Were consumers induced to take all the butter produced in summer during that season, unnecessarily low prices would result and a great deal of butter would be practically wasted. Moreover, the butter made in winter is not sufficient in quantity to feed

[1] Data from *Market Reporter*, U. S. D. A. Bureau of Markets, Vol. I, No. 14, p. 214.
[2] Data from *Kansas Exp. Sta.*, *Bul. 216*, p. 59.

people during that season. Therefore his occupation is to practice storing, a method of conserving the surplus of summer when immediate consumption would be wasteful, and of holding it for the winter's use. Price changing is the method at his disposal to force economy and thus to conserve summer waste for winter use. This task falls upon the wholesaler, because neither farmers nor creameries, on one hand, nor retailers or consumers, on the other, attempt seriously to solve the problem themselves as individuals. For the most part, they could not solve the problem even were they to try. The wholesaler controls the situation by exercising his judgment on the basis of market conditions. He buys butter from creameries on the basis of the price which he feels reasonably certain of obtaining when he sells it. The wholesaler runs a speculative business in part, for the reason that he is obliged to hold large quantities of butter from one season to another. . . .

"When the production of butter increases in the spring, and receipts upon the wholesale markets exceed the amount which consumers will take at prices previously charged, sale of surplus butter is brought about by lower prices. In normal seasons, during April or May, these prices have fallen sufficiently low because of the effort of wholesalers to induce increased consumption, to warrant those interested in storage to purchase for holding. Figure 24 gives the facts concerning butter production in Kansas in relation to the net intake and output of butter by storage concerns for the United States. While only 10 per cent, approximately, of the year's output of creamery butter is held in storage from surplus to deficit seasons of production, the steadying influence which the storage of this butter exerts upon prices is truly remarkable. Before storage facilities were perfected and utilized for holding butter, prices fluctuated, on an average, 120 per cent.[1]

[1] University of Wisconsin, Agric. Exp. Sta. Bul. 270, p. 37.

With the development of storage and the operation of speculation, extreme fluctuation in price has been greatly reduced. Prices neither rise as high nor fall as low as they formerly did. Figure 25 shows the relation of variation in production to the variation in price. The wide fluctuations have been chiefly reduced by storage to approximately one third of their former range.

"To the farmer, stability of price for butterfat has added greatly to his income. Formerly he obtained the very lowest prices when the bulk of his butterfat was sold. At present, while the price remains somewhat lower in winter than formerly, the substantial increase in summer has greatly increased the average price for his year's sale of butterfat. Consumers benefit by storage because it guarantees

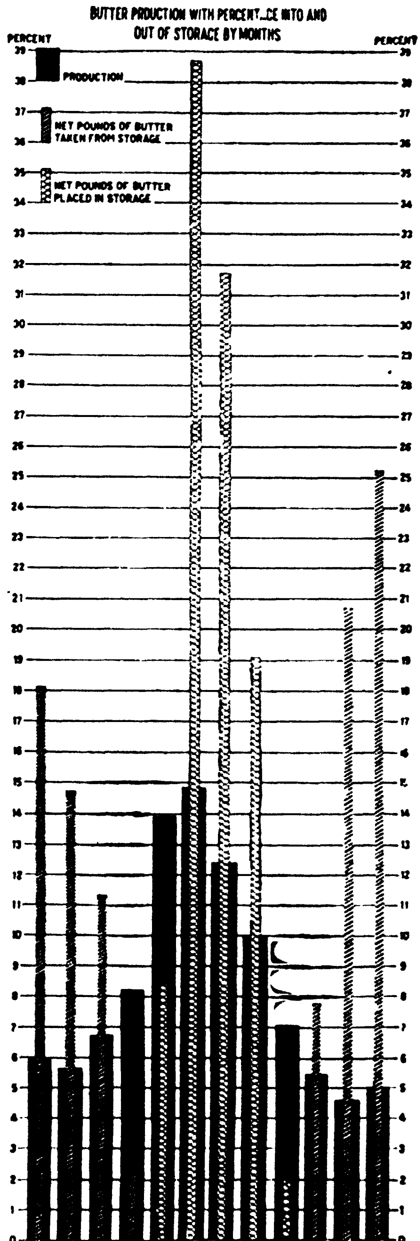

FIG. 24. — WHEN BUTTER GOES INTO AND OUT OF STORAGE

About one tenth of each year's creamery butter is stored from summer to winter. None of this butter goes into storage for future use until a surplus has accumulated, as shown for the month of May. None of it comes out until shortage of production has been felt, as shown for October, causing it to be demanded by consumers wanting their normal supplies of butter. (Courtesy Kansas Station.)

a supply of butter at reasonable prices, whereas formerly shortage of butter and extremely high prices sometimes compelled strenuous economy and even the doing without butter at times."

This reduction in price fluctuation to one third of the former range attended by benefits of adequate supply to consumers throughout the year and of greater income to farmers was made possible by the service of storing which costs only 1.9 cents per pound for the butter actually stored. Inasmuch as one tenth of the butter only is stored and this portion of

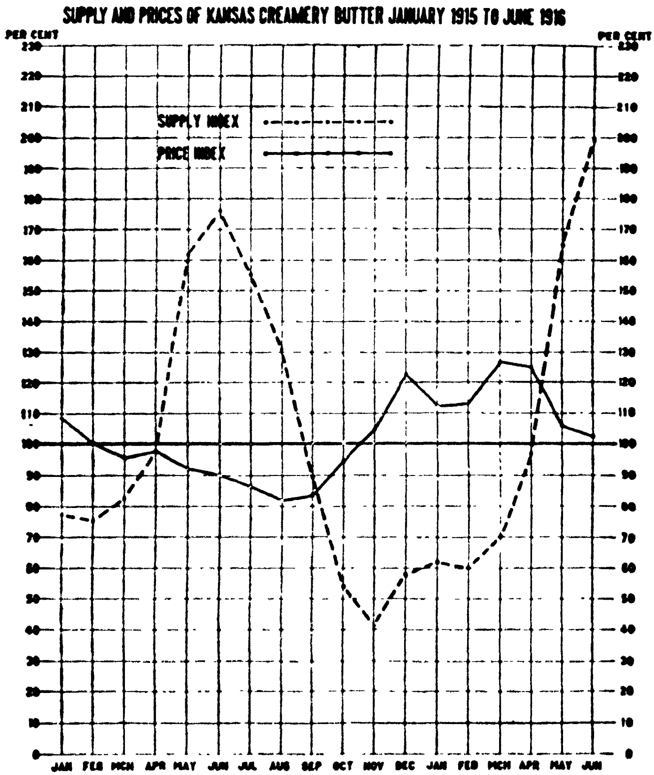

FIG. 25.—STORING STABILIZES THE PRICES OF CREAMERY BUTTER

Before the era of cold storage, butter prices fluctuated to the same extent that production varied. The cold storage facilities, by making it possible to hold some of the surplus of summer for winter use, have reduced the price variation to about one third of what it formerly was, as in the period 1880–1884. This means higher prices when farmers have the bulk of their butter to sell and it means adequate supply for consumers during a period when they formerly had to go largely without butter. (Courtesy Kansas Station.)

the annual production stabilizes the prices for the total output, the cost may be thought of as less than .2 of one cent per pound or about one half of one per cent of the retail value. The economic consequences of storing in this illustration vastly outweigh the expense of the service. These benefits of storing make it an essential part of the marketing system.

Storing Stabilizes Marketing Operations. — Much of the actual work devoted to products from the time that they leave farms until they reach consumers, work which is described in this book as one or more of the essential services in marketing, involves the maintenance of business organizations utilizing expensive buildings, machinery, and other equipment, besides employing forces of skilled employees and expensive management. Because much of the expense of maintenance continues, whether products are handled or not, it is highly important that these business enterprises should be operated uniformly at their most economical capacity. To realize this aim requires that a supply of raw material be available in substantially equal portions from month to month throughout the year. Since farming does not result in the harvesting of uniform quantities of the various products during each month, uniform flow of these raw materials to processing concerns, to the various other middlemen and eventually to consumers is not possible without storing. Unfortunately, many farm raw materials cannot be held over by storing unless they are first processed in one way or another. Milk, for example, cannot be stored immediately as fresh whole milk. It must be processed first either by condensing or desiccating. Butterfat for butter purposes cannot be stored in the form of cream. It must first be converted into butter. Similarly, cotton must be ginned and baled before economic storing is possible. Hogs must be converted into lard, bacon, hams, and pickled meats before holding is feasible. The dif-

ferent middlemen specializing in the performance of these services so essential before storing can take place are necessarily obliged to adapt their operations to the extreme fluctuations in supply. Obviously, they meet with relatively higher expenses because of the fact that buildings, machinery, equipment, management, and skilled labor must be maintained intact and in readiness to handle immense quantities of products during a few months of heavy production. Following these periods in which the peak load is moved, the volume of business falls far below capacity of the business organizations and hence partially idle investment and management result in a heavy overhead cost,[1] which necessitates

TABLE XXI. — EFFECT OF VARIABLE QUANTITY UPON COST OF ASSEMBLING BUTTERFAT[2]

PERIOD	CREAM STATION BUTTERFAT IN PER CENT	COST OF ASSEMBLING CREAM STATION BUTTERFAT (CENTS PER LB.)	DIRECT SHIPPER BUTTERFAT IN PER CENT	COST OF ASSEMBLING DIRECT SHIPPER BUTTERFAT (CENTS PER LB.)
July to December, 1915	47.2	5.5	44.3	.84
January, 1916	4.9	5.6	5.5	.94
February	4.7	5.7	5.5	1.17
March	5.7	5.3	6.1	1.09
April	7.9	5.0	8.0	1.06
May	13.4	4.3	13.9	.80
June	16.2	4.2	16.7	.71
Year, July, 1915 to June, 1916	100.0[3]	5.1	100.0[4]	.87

[1] One of the few examples with available facts to show the effect of changing volume upon the cost of the middleman business is that of centralizer creameries. (Original data obtained for Kansas Exp. Sta. Bul. 216.) The figures presented in Tables XXI and XXII clearly illustrate the fact that a business equipped to handle the peak load must necessarily operate at higher cost when the fluctuating conditions of farm production enforce continued operation with far less than capacity supply. This is true whether the service is considered as one of assembling, of processing or of distributing. Were the production of butterfat stablized to a basis of uniform monthly output, creameries could be run with plants built and equipped to operate with half of their present capacity. A lower overhead cost combined with uniform and lower average monthly operating expense would be the consequence. Accordingly, competition would reduce the margin now found essential to the profitable operation of creameries.

[2] Compiled from original data obtained for *Kansas Exp. Sta., Bul. 216*.

[3] Represents 8,992,743 pounds of butterfat. [4] Represents 5,196,322 pounds of butterfat.

TABLE XXII. — EFFECT OF VARIABLE QUANTITY UPON COST OF MAKING BUTTER[1]

Period	Total Butter Made, in Per cent	Average Cost of Making All Butter (Cents per Lb.)	Tub Butter Made, in Per cent	Average Cost of Making Tub Butter (Cents per Lb.)	Print Butter Made, in Per cent	Average Cost of Making Print Butter (Cents per Lb.)	Total Butter Marketed in Per cent	Average Cost of Distributing (Cents per Lb.)
July to December, 1915	46.0	2.08	38.8	1.90	52.9	2.13	47.4	.57
January, 1916	5.0	2.34	4.3	2.07	5.8	2.46	5.5	.76
February	4.9	2.37	3.4	2.34	6.1	2.30	5.4	.68
March	5.6	2.32	4.5	2.19	6.4	2.10	6.3	.64
April	7.8	2.10	7.6	2.06	8.2	2.03	7.1	.53
May	13.9	1.58	19.5	1.36	9.1	1.83	12.6	.33
June	16.8	1.60	21.9	1.39	11.5	1.83	15.7	.31
Year, July, 1915 to June, 1916	100.0[2]	1.96	100.0[3]	1.72	100.0[4]	2.10	100.0	.51

[1] Compiled from original data obtained for Kansas Exp Sta. Bul. 216.

[2] Represents 10,816,439 pounds of butter.

[3] Represents 6,754,043 pounds of butter.

[4] Represents 9,052,401 pounds of butter.

higher margins than would be required could these raw materials be held by storing. However, the fact that surplus butterfat in the form of cream cannot be held by storage for uniform monthly manufacture of butter makes it necessary for creamery concerns to be equipped to handle peak loads in spite of this requirement being more expensive and necessitating a wider middleman margin.

Storing Aids Regularity in Flour Milling. — Relatively nonperishable raw materials permit the practice of storing as a means of bringing about regularity in operation and uniformity of monthly output of finished commodities. Thus wheat which is stored on farms, in warehouses owned by local and terminal elevator companies, by mills and others, represents a raw material processed in comparatively regular quantities from month to month. Thus, according to data in Table XXIII, while 72.6 per cent of the wheat moves

TABLE XXIII. — FARM MOVEMENT AND MILL CONSUMPTION OF WHEAT[1]

MONTH	WHEAT RECEIPTS FROM FARMS IN PER CENT	MILL GRIND OF WHEAT IN PER CENT
July	14.4	4.4
August	23.4	9.3
September	18.7	9.3
October	16.1	10.6
November	7.8	8.3
December	7.0	9.0
January	4.8	9.9
February	2.4	6.5
March	1.5	7.7
April	1.1	8.8
May	1.6	10.3
June	1.2	5.9
Total	100.0[2]	100.0[3]

[1] Data for 1918–19 from Grain and Flour Statistics during the war. *U. S. Grain Corporation*, pp 28-29.

[2] Represents 730,061,000 bushels of wheat

[3] Represents 539,058,000 bushels of wheat.

from the farms of the country during the four months from July to October, only 33.6 per cent is milled during this period. The surplus wheat of the harvest months is held by storage for relatively constant and uniform milling during the succeeding eight months.

Cotton Storing Permits Constant Monthly Milling. — Probably the most uniform performance of marketing services is that of the monthly manufacturing of cotton in American mills. The facts in Table XXIV show that not less than 8 per cent of the average annual milling nor more than 8.8 per cent occurred during any one month. In contrast to this exceedingly uniform utilization of raw materials, note the fact that harvesting, as measured by ginnings, occurs largely within three months and that the principal flow of cotton or movement to markets also takes place within three months.

TABLE XXIV. — GINNINGS, MOVEMENT AND CONSUMPTION OF COTTON

MONTH	COTTON GINNED IN PER CENT [1]	COTTON MOVEMENT IN PER CENT [2]	COTTON CONSUMPTION IN PER CENT [1]
August	6.5	1.4	8.3
September	22.6	9.5	8.0
October	38.9	21.0	8.1
November	18.4	22.2	8.4
December	7.8	17.4	8.2
January	5.8 [6]	8.8	8.7
February	--	5.6	8.0
March	--	4.9	8.7
April	--	3.2	8.3
May	--	2.7	8.8
June	--	1.7	8.4
July	--	1.6	8.1
Total	100.0 [3]	100.0 [4]	100.0 [5]

[1] Data for years 1915-18 from U. S. Dept. of Commerce. *Bureau of Census Bul.* 140, p. 24.
[2] Data from U. S. D. A., Bureau of Crop Estimates, 1919 crop.
[3] Represents 45,526,810 bales or the crops of 1915, 1916, 1917, and 1918.
[4] Represents 11,329,755 bales of 1919 crop.
[5] Represents 25,518,543 bales or U. S. cotton mill consumption for years 1915 to 1918, inclusive.
[6] Includes all ginnings for balance of season.

While cotton growing and harvesting as well as cotton movement to markets is far from uniform each month, and necessarily so on account of the characteristics of the growing season, storing makes possible the spreading of cotton manufacturing throughout the twelve months. In contributing to this condition, storing reduces processing costs and hence narrows the total margin in marketing cotton and its products. Moreover, it tends to make cotton milling an occupation continuous throughout the year, a condition reducing the chances of unemployment and lowering the costs of operation.

What storing has accomplished for the numerous products at present susceptible of this service, further invention and discovery may spread to commodities whose utilization now is almost entirely confined to a short season during and immediately following the harvests.

Storing Stabilizes Price by Market Feeding. — Because farm products are so generally harvested within short periods and as rapidly as possible forwarded to markets where change of ownership takes place, it is almost universal for farmers to dispose of the bulk of their commodities at prices needlessly depressed as a result of market glutting. Without analyzing the character of consumption whether by processors or by final consumers, it is a general conclusion of farmers that middlemen intentionally depress prices in order to buy at a figure low enough to give a wide margin when the goods are later sold to actual processors or to consumers. Probably no other phase of the marketing system is more in the minds of both consumers and producers than this problem. Farmers, consumers, middlemen, and the public in general may profit well by grounding their thoughts along this line more upon basic facts and less upon imaginations and misunderstandings. Consider for example the basic facts of wool consumption and production and then examine the reasons

for the inefficient wool marketing system of the past. Contrast with former inefficiency the benefits which have been gained by storing wool and feeding it to woolen mills in accordance with their needs.

The consumption of wool by mills is very uniform from month to month, as shown in Table XXV. On the other

TABLE XXV. — MONTHLY WOOL CONSUMPTION IN THE UNITED STATES [1]

MONTH	MONTHLY WOOL PRODUCTION IN PER CENT [3]	MONTHLY WOOL CONSUMPTION IN PER CENT [2]
January	.3	8.8
February	.1	7.7
March	.2	8.7
April	negligible	9.1
May	1.0	9.3
June	12.9	8.4
July	33.0	8.1
August	35.7	7.9
September	11.6	7.8
October	2.3	8.4
November	1.1	8.1
December	.9	7.7
Total	100.0	100.0

hand, the shearing of sheep and the consequent movement of wool from farms and ranges has normally occurred within short seasons. To throw vast quantities of wool on the markets of the country without reference to mill consumption necessarily glutted the nation's markets and brought on seasonal depression in price to the producer. Analysis of the wool marketing machinery indicates that a great amount of wool has normally been sold by farmers to local middlemen handling very small quantities who were not equipped either in knowledge, facilities, or finances to pay the farmer all his wool was worth locally, considering what mills even-

[1] Data from U. S. D. A. Bureau of Markets, *The Market Reporter*, Vol. II, No. 24, p. 369.
[2] Average for years 1918 to 1920.
[3] Data from National Wool Warehouse and Storage Co., Chicago.

tually pay for it. These local, inefficient wool buyers in turn necessarily passed the wool on to middlemen handling large enough volumes of business to justify the performance of various essential services, such as grading, financing, storing, and distributing, each of which was required before mills would take and pay for wool. It is generally conceded by all that the local junk and wool dealer or other small wool buyer is usually exceedingly inefficient. The conditions and territorial quantity of wool make this unavoidable under the usual plan of moving the wool clip. On the other hand those middlemen, relatively few in number but doing immense volumes of business, who store surplus wool for disposal to mills according to their continuous requirements, are unquestionably efficient and therefore strong in competitive bargaining with local wool dealers from whom they draw their supplies of wool. Certainly it is no exaggeration to imply that the middlemen who store wool and feed it to the mills have done so at prices which were in line with the prices obtained by mills for their finished articles. It is beyond question that mills purchase wool on a relatively stable cash basis while the middlemen storing wool buy their supply from more or less helplessly inefficient local dealers at a time when vast oversupplies have depressed the current speculative prices. Were it not for the possibility of more comprehensive and effective market organization this former program of speculative wool selling might be beyond criticism. Knowledge and experience accumulated to date both show that improved marketing methods can be practically developed and made to replace the old system and its inefficiency, however. The secret of the change consists of enabling farmers to defer the sale of their wool from shortly after clipping to the time when mills themselves require wool for actual milling purposes. In other words, the producers by developing proper organization may retain ownership of their wool until needed

by mills, thus making it possible for producers to feed the markets of the country at a rate which will prevent market flooding, instead of selling the whole clip at one time at prices unduly depressed because of excessive temporary market supply.

Storing the Basis of Effective Wool Pooling. — Perhaps the best illustration available to show the stabilizing effect of storing upon prices is the experience of Iowa wool growers with their 1918 clip. For this year mills paid prices which justified an average return of 62 cents per pound to farmers. When the clip was ready to market, from the very beginning of the 1918 season local ragmen and wool buyers attempted to secure their supplies at prices of 35 to 40 cents per pound. Happily, the wool growers had been organized to pool their clip for storing and stabilized marketing purposes. By their pooling system they accomplished what the cartoonist has portrayed in a pen picture in Figure 26.[1] Instead of an average price of 40 cents paid while markets were flooded, the Iowa wool growers stored their clip in a warehouse and by selling in accordance with milling needs averaged 62 cents for their wool of all grades. The prices secured ranged from 40 cents for low grades to 78 cents for the best. Obviously, there were expenses incident to the operation of the pool. But these expenses amounting to less than 6.1 cents per pound were small compared with the substantial price increase of 22 cents per pound which they obtained above the offerings of the local buyers. That these wool growers were able to gain 15.9 cents a pound after paying all costs, including interest on liberal advances of money on their wool before it was sold, is indeed significant.

Viewed from a different angle, farmers by pooling their wool and storing it for stabilized marketing made unnecessary the great number of inefficient local wool dealers. In

[1] Cartoon in *Chicago Daily Drovers' Journal*, May 14, 1920.

place of the former numerous private middlemen a single coöperative middleman was employed to transact the mechanical details of marketing. The expenses of the new system were substantially as shown on the next page.

While the period mentioned was one of rising prices, it is absurd to assume that a margin of 22 cents is necessary when

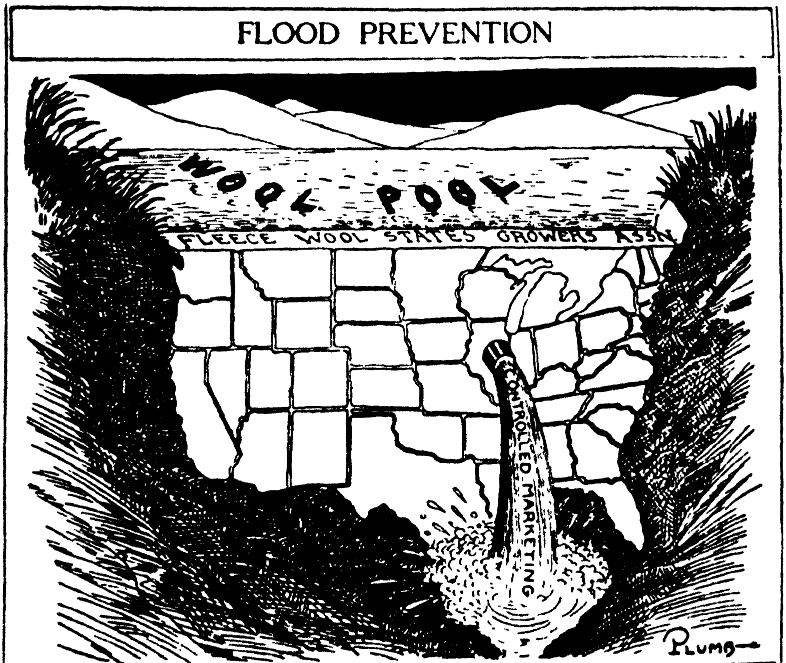

FIG. 26.—POOLING PROMOTES STORING AND FEEDING OF MARKETS

The idea of the pool is to render storing services more completely and efficiently, to the end that prices may be stabilized by preventing the alternate flooding and starving of markets. This principle applies to all products suitable to storing. (Courtesy *Chicago Daily Drovers' Journal.*)

the costs of a better system amount to less than one third as much. In periods of declining prices, moreover, under the old hit-or-miss system which brought about market gluts and unavoidably functioned with high expense, even wider relative margins were expected as a means of playing safe. Under these old conditions both the small middleman and the farmer were helpless because the service of storing was not

utilized to protect the primary producer, the farmer. That numerous private as well as coöperative marketing agencies are rendering the service of storing as a means of promoting industrial and price stability is well known to business men. It behooves the farmer to see to it that his interests are not overlooked in the performance of this essential marketing service.

COST OF POOLING AND OF FEEDING WOOL TO THE CONSUMER MARKET[1]

ITEM OF EXPENSE	CENTS PER POUND
Handling, Grading, Storing, Insuring, Selling, Shipping — First four months	2.50
Freight	1.30
Interest on advances	.93
Additional storing, insurance, and interest charges for two months	1.36[2]
Total expense for six months	6.00

Storing an Aid to Convenience in Marketing. — Farmers find it convenient to store many products temporarily rather than defer other work in favor of hauling immediately after harvesting. This is particularly true of such bulky yet relatively nonperishable commodities as wheat and other salable grains, potatoes, hay, certain fruits, vegetables, cotton, and wool. The reasons for farm storing of potatoes are typical of the conditions and influences which make it convenient for farmers to render this service in their own behalf.[3] First, the potatoes are dug during a very short period in the fall. To

[1] Charges as arranged with National Wool Warehouse & Storage Co.

[2] Additional monthly charge after first four months, storing $\frac{1}{20}$ cent, insurance $\frac{2}{5}$ cent, and interest .23 of a cent per pound.

[3] Wisconsin Exp. Sta. Bul. 256, pp. 8–11.

attempt to haul each load to market when dug would consume time which is more valuable if used in digging the balance of the crop. Since warehouse facilities at shipping points are not designed nor adequate in size to hold all or even a large part of the crop, it is physically impossible to provide storage at local shipping points even were farmers disposed to deliver their product. Equally important is the fact that transportation facilities are not capable of moving the potato supply as rapidly as it matures and is harvested. By farm storing, therefore, it is possible for farmers to arrange their hauling to meet their own convenience as influenced by other important farm work, as dictated by weather and road conditions, as stimulated by price levels, and as regulated by local shipping-point storing and transporting facilities.

SUMMARY

1. Storing is essential because human beings generally are not able to hibernate or to migrate. Production is seasonal while consumption is relatively uniform from month to month. To make possible uniform consumption requires storing of surplus products during periods of plenty.

2. Middlemen whose services are rendered for the purpose of gaining private profit are at present the principal agencies for storing products. To be certain of profit forces them to delay purchases for storage until accumulations of surplus commodities on the market have caused excessive declines in price. This is unfortunate because these disastrously low prices increase the hazards of farming. Better organization capable of leaving the ownership of products with farmers until consumers need them is the only certain solution.

3. Storing, instead of being a means of manipulation against the interests of farmers and consumers, is a means of broadening the markets for the former and of increasing the supply for the latter.

4. Storing, accompanied by a stabilized flow of commodities to the markets of the country, stimulates activities of all of the middlemen who render essential marketing services other than storing. This is the case because stability means certainty of reasonable profit. It eliminates the hazards of great loss which may only be recouped by great profit, which comes only by chance.

5. Storing, accompanied by market feeding or the stabilized flow of commodities, prevents needless fluctuation in prices to farmers as well as to consumers.

6. Pooling of commodities by grades over certain periods of time facilitates the accomplishment of two objects: (1) market feeding, and (2) uniform price to producers for the same kind, quantity and quality of article. In this way hazards in agriculture because of price fluctuation are mitigated.

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CHAPTER IX

FINANCING THE MARKETING OF FARM PRODUCTS

CREDIT is necessary in marketing, first, to make it possible for farmers to finance their operations from the time that crops and other products are matured until the essential marketing services are rendered by middlemen, and, second, to enable middlemen to finance their operations from the time that payment is made to farmers for raw materials until the finished commodities are paid for by consumers. Producers of all kinds with either unused time or unsold commodities have need of the service of financing. Without the cash or credit which financing provides, both commercial farming and marketing are utterly impossible. The experience of marketing enterprises, whether private or coöperative, during the past fifty years have fully emphasized this fact. Recently, both during and since the World War, all classes of society have witnessed a demonstration of the immense importance of adequate, timely and intelligent financing. Mistakes in the rendering of this service while retrievable are not overcome without serious consequences. The success and life itself of a marketing enterprise hinges upon the character of its financing.

Why Financing is Essential. — Primitive thinking like primitive production is based on direct action which is economically more expensive than the roundabout methods of modern commercialized effort. At first glance this assertion may not be clear to the casual reader. The man who believes thoroughly in direct action or the direct method, if he is consist-

ent, must insist upon farming with his hands alone, not even relying upon the aid of a sharpened stick or the help of other implements that consume time in the making. Similarly the products which he may harvest must be consumed directly by himself or by others to whom he himself has carried them. To have products marketed by another person involves relationships which necessitate roundabout methods in place of direct action. But just as farm machinery has multiplied the productiveness of the farmer, so also roundabout methods in marketing have increased the efficiency both of farmers and of the marketing system, in spite of the fact that indirect action involves expenses. The point of importance is that these indirect methods while expensive may be far less costly in time actually taken from more profitable farm operations than for the farmer himself to market products.

All production, whether it be in the form of creating physical products or in rendering economic services, is stimulated and justified by the consumer's need when the consumer is able and willing to make payment. Under a system of direct action or self-sufficing economy the consumer's desire would induce him to produce. Thus the want for flesh led certain primitive savages to disguise their heads as floating vegetation and to walk amongst flocks of waterfowl where unsuspecting ducks were suddenly seized and pulled beneath the surface. In the more modern but self-sufficing form of production, the consumer anticipated his desire for wheat and produced a supply adequate only for his personal and family wants. The procedure of this consumer in measuring his needs months in advance and in engaging in activities to guarantee a supply was roundabout in comparison with the actions of the savage who hunted wild fowl and whose supply was obtained within a few minutes or hours after realizing what hunger prompted him to obtain only because it took more time. In the case of the self-sufficing

farmer more time elapsed between his application of effort and the satisfaction of his wants. In either case the lapse of time was a light or heavy burden upon one and the same individual, because he was both consumer and producer.

In sharp contrast to the simple conditions of self-sufficing production stand the complex requirements of roundabout, modern, commercial effort. With this complexity comes a series of ownership transfers which may cover either contemplated or actual goods. Both the lapse in time between the commencement of productive operations and emergence of the finished article and the period intervening between completion of salable goods and their delivery to successive middlemen, each contributing some useful and essential service, necessitate, to a variable extent, the rendering of the service of financing. For the period of time between maturity of crops or completion of finished goods and their purchase by successive middlemen or by consumers, somebody's money is tied up and kept from use for other operations. The party whose money is thus utilized provides the principal capital required by marketing enterprises. Thus the problem of both long and short time credit has gradually become acute with farmers progressively with every step in the development of commercialized farming. Similarly, middlemen of all kinds are confronted with the question of both short and long time financing. No single problem of recent years has been more in the minds of actual producers than this. Its importance during the period of rising war prices was far less appreciated than it has been recently when falling prices and declining values have forced liquidation because former credit securities had shrunken to less than the face value of loans. Even more important than shrinkage of values, and hence the undermining of credit security, has been the widespread recognition by producers of the vital neces-

sity of adequate financing as a means of successfully disposing of products to those whose ability to purchase is in turn directly limited by inadequate financing.

The social and economic value of the service of financing in modern life is paramount. A break in its continuity might readily stop the flow of wheat and other products from farms to consumers or cause disposal at a rate far too rapid. The former condition actually occurred when the cumulative effects of restricted transporting facilities prevented adequate grain movement. The latter could readily develop if banks were, for such reasons as shortage of funds, obliged to refuse credit renewals on products held by farmers. In fact this has frequently occurred. Good examples of this are forced selling of wheat and cotton in the fall because of credit shortage. What applies to farmers holds equally well for all kinds of other producers, including both private and coöperative enterprises. The adequacy of financing controls the operations of a marketing agency perhaps more rigidly than that of any other kind of productive operation.

The Objects of Financing. — The service of financing, if adequately rendered, provides capital in such forms and quantity as expeditious and efficient operation of the business of marketing requires. Depending upon the character of product handled, upon the relative location of consuming and of producing regions, and upon the number and kind of marketing services performed, a given middleman either private or coöperative will require large or small amounts of capital. These capital needs may be classified as (1) need for equipment or relatively fixed and permanent capital, and (2) need for supplies or relatively free and therefore changeable or circulating capital. The first kind represents real estate, buildings, machinery, office equipment, and all permanent facilities for transacting and housing the business or storing its raw materials and finished products. The second

kind of capital refers to the money required to pay for supplies of raw materials handled or stored, to meet operating expenses, and to cope with all unforeseen problems confronting the business, including the storage of such finished goods as may be required to stabilize prices and marketing.

By way of illustration consider the fixed and circulating capital required to operate the grain-marketing company known as the United Grain Growers, Limited, of Canada.[1] Its equipment capital in 1919 amounted to $3,207,303, divided into $2,749,700 for elevator buildings, machinery, warehouses and miscellaneous equipment; $387,195 for real estate: and $70,408 for office furniture and equipment. The supply or circulating capital amounted to $4,712,964 exclusive of the amounts borrowed for short periods to finance the handling of the seasonal peak supply of grain. This vast sum of $7,920,267 had been provided in part by the stockholders of the company and in part by outside parties from whom loans were obtained. The significant fact is that this concern needed and was able to secure this large amount of capital. The success for which this group of grain growers has become noted would not have been achieved without it.

An example of a marketing enterprise which has operated with capital very largely provided by outside financing is the Wisconsin Cheese Producers' Federation.[2] This organization, which sold approximately 14,000,000 pounds of cheese in 1919 valued at $4,306,599, required equipment capital amounting to $46,948 or 20 per cent of the total capital, and circulating capital of $187,585 equal to 80 per cent of the total. Depending upon the season of the year, this free capital was supplemented by short-time bank loans ranging in amount from $2500 to $256,000 per month. With a capital stock of only $1320 supplemented by a surplus of $37,694

[1] United Growers, Limited, Annual Report, 1919, pp. 34–35.
[2] Financial statement for year ending December 31, 1919.

and undivided net income of $26,017, it is evident that most of the financing required came from outside parties.

Sources of Funds to Finance Marketing. — The funds with which marketing enterprises are to be financed may be provided on the one hand by those who own the business and are responsible for its maintenance and operation. This is true whether the middleman be private or coöperative and whether the type of organization be individual, partnership, or corporate. On the other hand the owners and operators of the business may conduct marketing enterprises wholly by the aid of borrowed capital. Innumerable undertakings are financed in part by the owners and in part by outsiders. Usually all of the equipment or permanent capital is furnished from funds raised according to various plans by the owners of the enterprise, while part or all of the circulating capital is obtained through the usual commercial credit institutions.

Problems of Expediency and Soundness in Financing. — Some methods of financing are sounder than other methods. Taking into account local conditions confronting marketing enterprises, the practical question always arises as to which of the various methods of financing is most desirable. Obviously any marketing business which is supplied by its owners with adequate finances for all purposes is in the strongest possible financial position, provided it follows a conservative policy of spreading risks through insurance and various necessary trade practices that protect the business against large and unforeseen losses. With equipment and supply capital adequate to meet all normal requirements and to safeguard against unforeseen contingencies, with the exception of overwhelming conditions beyond the power of the management to control, a middleman, whether private or coöperative, is unassailable. Thus financed, a middleman's competitors could not reduce his volume of business except (1) by developing greater operating efficiency attended by

more favorable buying and selling prices, or (2) by practicing methods which, if not legally, are at least ethically unfair.

In sharp contrast to this ideally financed marketing business is the poorly financed undertaking which relies wholly upon outside funds for all of its capital requirements. In periods of falling prices and values such a concern runs the dangerous chance of being denied renewal of credit. In fact, many enterprises operating on this sort of unsound financial foundation have been forced into bankruptcy in spite of efficiency and strength in all other respects.[1] While numerous marketing ventures, particularly certain promoted farmers' coöperative concerns, have been financed entirely from outside sources, the plan is one which invites disaster in far too many instances. Enterprises for which the owners are unable or unwilling to contribute at least the requisite funds for equipment capital are more than likely to end in failure because sound business principles are not heeded, if for no other reason. The chances are that the attitude of the owners which results in underfinancing will also permit inefficient management, and if so failure is a certainty. However, there are many successful marketing enterprises which have been built up to a high degree of usefulness wholly by the aid of outside financing. While the plan is usually unwise, the circumstances of time and place, especially confidence in the dependability of outside creditors, may justify its use when all other financing methods are practically impossible.

The vast majority of middlemen follow a middle course in their financing for reasons of expediency. Their circulating capital usually is provided by paid up shares of capital stock or by membership contributions and dues. While all of the circulating capital may be contributed in the foregoing

[1] *The Coöperative Secretary*, by Alfred Wood, C.A. (Coöperative Union, Manchester, England), Chapter XXIII, p. 407.

manner usually only enough is so raised to pay for the normal monthly volume of products handled plus the necessary operating expenses. That portion of the circulating capital [1] required to finance the peak loads of the business is borrowed from either the regular credit institutions or from such other sources as may be available. Some idea of the variation in quantity of circulating capital obtained from outside sources may be gained from the following monthly bank loans of a marketing concern selling $4,300,000 worth of cheese annually.

SEASONAL VARIATION IN BANK LOANS FOR A CHEESE MARKETING CONCERN

DATE	AMOUNT OF LOANS	PER CENT OF TOTAL	PER CENT BASED ON YEAR'S AVERAGE
January 31	$10,000	.9	10.5
February 28	15,000	1.4	16.2
March 31	2,500	.2	2.6
April 30	20,000	1.7	20.9
May 31	20,000	1.7	20.9
June 30	129,000	11.2	124.3
July 31	172,000	15.0	180.0
August 31	256,000	22.3	267.5
September 30	174,000	15.1	181.8
October 31	132,000	11.5	138.0
November 30	140,000	12.2	146.3
December 31	77,575	6.8	81.1
Total	$1,148,575	100.0	.....
Monthly average	95,715	....	100.0

From these facts it is plainly seen that a shortage of funds or a refusal by the usual credit institutions to grant reasonably large loans would seriously embarrass if not altogether destroy unsoundly financed marketing enterprises. On the other hand, concerns owning capital in amounts large enough to finance their peak loads of business without borrowing,

[1] Circulating capital is used primarily for the purchase of raw materials and is unavoidably tied up temporarily in both unfinished and finished commodities. For this reason it may be thought of as supply capital.

are almost compelled to run a banking, loan or investment business as a side-line in order to keep their current resources working at all times, and this is unwise, as the two kinds of business are quite dissimilar.

Consumers Ultimately Finance All Production. — Unfortunately the complexity of modern commercial effort hides the fact that in the last analysis the consumer finances all truly productive undertakings. Farmers and middlemen strive to render their respective services because they feel that the consumer will pay, and that the payment will be sufficient to compensate both for the effort of production and for the irksomeness of waiting for repayment of money which they have advanced. Generally their confidence is well placed because misjudgment and inefficiency are not the rule. Careful examination of the source of capital shows that some one must save. Saving is deferred consumption on the part of the final consumer. Any one who saves and directs the goods thus accumulated or the money equivalent of these commodities to further productive purposes is financing producers whether they be creators of necessary physical products or of essential services.

Saving is the source from which all capital is obtained. But saving is not practiced by every one. For this reason there is insufficient capital in existence to aid all of the productive work which has need of capital. Consequently pressure of one kind and another must be exerted to compel those to save who do not do so voluntarily. Saving is therefore brought about by two general methods. These are (1) voluntary saving in response to the instinct of thrift and the premium known as interest, and (2) compulsory saving realized more or less unconsciously through the operation of forces over which the individual alone has little control.

Voluntary saving means that each individual of his own free will has forced upon himself the task of spending less

than his income, the saving thus brought about being made available for use in financing productive operations.

Compulsory saving, in contrast to voluntary saving, means that some portion of the income of consumers is kept from them and used for securing capital goods. This may be done with or without their approval. For example, the price level during a given period may be particularly high, as during the war. Large profits in such a period are made in many lines of marketing. The consumers who pay high prices contribute to the surplus profits which the government may take in high taxes or corporations may reinvest in the business under the privilege of raising capital through the issuing of stock dividends. In a case of this kind two groups of consumers are forced to save. For one group of consumers, unusually high prices imply shortage of production. Under this circumstance profits large enough to justify extensive reinvestment in the business is the most certain means of causing expansion of productive operations to rapidly increase supply and reduce prices. For this group of consumers it is well to realize that the paying of high prices, high enough to meet operating expenses, provide normal profits, and give a surplus with which enlargements and improvements could be made, is an indirect means of compelling consumers to involuntarily finance increased production. Thus surplus funds may be derived from consumers through high prices and converted into capital, something which would not occur were these same consumers able to purchase commodities at lower prices, for the reason that they would spend all of their income for immediate consumption instead of voluntarily saving for investment.

For the other group of consumers saving is forced by the payment of dividends in stock instead of cash. By so doing, profits which would be used primarily for immediate consumption purposes by consumer stockholders, are turned into capi-

tal in the form of enlarged factories, further equipment and other improvements which increase the productive capacity of given enterprises. In these and many other ways consumers are coerced to save where voluntarily they would not do so. Unless large numbers of people of all kinds voluntarily save enough of their incomes to provide all of the capital needed by the various productive industries there must inevitably be a scarcity of credit to finance agricultural marketing. To partially overcome this scarcity of capital, and hence of credit, different means of enforcing compulsory saving are bound to be practiced as far as economic conditions permit.

Consumers who exercise sufficient control over their consumption may follow the policy of devoting definite portions of their income to buying consumption goods, thus stimulating their production, and of devoting the balance of their income to financing producers. This they may do either directly or indirectly. Direct financing may be illustrated by those consumers whose savings are expended for shares of capital stock in producing corporations or coöperative associations. Indirect financing, on the other hand, is illustrated by those whose savings are deposited with savings banks or other credit institutions and by them lent to producers. To devise and practice a policy of voluntary saving requires economic knowledge, courage, and self-denial in the present which the masses of people have not hitherto recognized sufficiently. As a consequence, the quantity of capital derived from this source has not been adequate to finance the total business of the country. Voluntary saving, in other words, has not been practiced widely enough to create an adequate supply nor has the marketing of capital, resulting from voluntary saving, always been as easy or inexpensive as that made available by compulsory saving.

It cannot be emphasized too strongly that the productive-

ness of the modern commercial system depends upon the use of buildings, labor-saving machinery and skilled laborers and management. All of these in turn become available only because sufficient numbers of people have saved from their incomes the money required to pay for the construction of buildings, the making of powerful and efficient though expensive machinery, and the education and training of laborers and managers. Wipe out all savings and these foundations of our productive society would crumble and vanish! In fact, every move toward undue taxing of buildings and other improvements, toward excessive taxing of incomes and of all other objects whose origin is human willingness to sacrifice or forego immediate consumption and enjoyment for future gain, is a step taken in removing the premium upon saving. Lessening the premium placed on saving inevitably discourages the formation of plentiful capital and credit. Yet one of the chief limitations to progress at all times, and particularly in periods immediately following devastating wars, is the shortage of credit and capital. To overcome this shortage requires not only that the wealthy and more fortunate members in society save to the utmost but that those who have never voluntarily saved before commence a rigid program of doing so at once. Only by a policy of country-wide saving, regardless of income, whereby enormous numbers of all classes save to their utmost, will it be possible to overcome the shortage of credit and capital which is being so keenly felt the world over.

The mass of consumers, however, instead of saving a portion of their income to be devoted to financing productive work generally bid their full income for goods which are ready for immediate consumption. This results in competition on the part of buyers to obtain goods of which there is an inadequate supply. A striking example of this occurred at the end of the World War when the orgy of spending by laborers

and others receiving more than normal incomes forced prices to the highest limits known. When buyers compete for commodities, and more goods are needed to supply them, those with means bid the price up by insisting upon securing their usual share irrespective of price.

Conditions like these result in price levels which provide efficient producers with relatively high profits and stockholders with handsome cash or stock dividends. When a business is confronted with an intense demand for its products, and additions of both equipment and circulating capital are necessary to expand operations so that output may be increased, the question arises as to which of many sources of financing may be least expensively utilized. Thus in periods when rising prices have made possible unusual profits and demand has indicated the need of expansion, stock dividends have been the least expensive means of compulsorily retaining for the business the necessary capital. Were these dividends paid in cash, the usual tendency of consumer psychology would have directed the bulk of these funds to consumption purposes rather than to aid the financing of further marketing operations. The stock dividend or the return of business profits directly into needed expansion is, therefore, but one way of inducing the consumer to finance production. It gives him title to his share of profits while preventing use of his share for current consumption. Its principal characteristic is the compulsion which enforces consumer saving where voluntary saving would not likely result. Its economic value lies in the cheapness and certainty of securing additional capital. In no small measure the merits of business sharing its profits with labor in the form of stock dividends or by similar methods are due to this feature of compulsory saving and the understanding which laborers gain of economic forces.

For Whom and When Financing is Justified. — Every experienced lender and borrower appreciates that risk attends

the use of capital. The business world is constantly reminded of this by the failures of enterprises of all kinds involving partial or complete loss of principle and interest. Moreover, it is a well-known fact that capital at all times exists in less quantity than is desired by producers. Therefore, irrespective of personality or kind of institution, those holding their own or other people's savings for use in financing production and marketing are constantly enjoined to lend to the most dependable and efficient enterprises only. In other words, bankers can lend money safely to those only who give satisfactory evidence that principal and interest will be safeguarded and paid according to agreement. Undoubtedly, most individuals have been faced with the question, "Shall I or shall I not invest?" in a given enterprise. Just as the prospective investor first makes for himself a careful analysis of the undertaking in question, so also bankers and other custodians of the public's savings are held responsible for like procedure. Out of the numerous demands for financing, only a part represent worthy undertakings managed by men of knowledge, energy, and business experience. It is for this class of efficient business management that financing is both desirable and justifiable. Certainly the great need of the present time is that all truly efficient and meritorious marketing undertakings should obtain adequate capital for efficient operation whether they be under private or coöperative direction.

At various times marketing companies, legitimately promoted by honorable and sincere individuals, have solicited stock and petitioned for bank credit, but could give no evidence whatsoever of an assured volume of business nor of efficient management. It is a credit to the soundness of banking and the intelligence of the public that applications to individuals and credit institutions for loans usually have been denied to this class of marketing undertakings. The only misfortune is that denials of credit of this sort have so

generally failed to stimulate popular recognition of the fundamentals of sound business management. Instead, tirades against the credit machinery have intensified misunderstanding between persons and classes. What this group of marketing undertakings, so largely represented by small individual concerns or by farmers' coöperative associations, should appreciate is that abundant financing will be available for them the moment that a sufficient and dependable volume of business is assured and efficient management installed to handle it. In the absence of either of these qualifications, efficient management and volume of business, the granting of credit to a marketing company is unsound and exceedingly risky. Neither private nor coöperative concerns should have the temerity to petition for credit under such circumstances, let alone deprecating loan facilities after failing to pass the credit man's inspection.

Methods of Financing Marketing. — Successful marketing concerns have been built up under almost every kind of financing plan. Summarized these various plans combine one or more of the features presented in the following classification:

CLASSIFICATION OF METHODS OF FINANCING MARKETING

1. Adequate capital stock for all equipment, supply and other requirements authorized, completely subscribed, and actually paid up in full.

2. Inadequate capital stock subscribed and paid up in accordance with legal minimum requirements supplemented by

- (*a*) Outside financing through loans from
  - (1) Patrons of the undertaking.
  - (2) Solicited special private lenders.
  - (3) Offerings of securities to the general public.
  - (4) Regular commercial credit institutions.
- (*b*) Inside financing through
  - (1) Assessment on all products handled.
  - (2) Stock dividend.
  - (3) Deferred payment of declared dividends secured by notes.
  - (4) Accumulation of undivided net income.
  - (5) Membership fees.

3. Reorganization and increased capital stock sale.
4. Nonpayment for products until results of sale are received.
5. Comprehensive system of loans and rediscounts on warehouse receipts.

As a general rule, private marketing concerns are organized strictly for private profit. As such the financing to provide equipment capital and the ordinary supply of working capital is taken care of by capital stock, while any one of the plans in the classification may be followed to provide additional funds for unusual needs. Experience has taught the more successful enterprises to seek financial independence as far as possible. In this respect, numerous coöperative marketing companies, with the exception of certain ones in California and in a few other sections of the country, have much improvement to make. Farmers as a rule have not had the particular kind of business experience which emphasizes the dangers of a keenly competitive régime. Hence they frequently do not appreciate the extent to which middlemen attempt to underbid competitors. It is not perhaps appreciated that the potential possibilities of farmers combined in effective marketing organizations, like the California growers of various products and the Canadian Grain Growers, represent forces which are not desired by private competitors. Restriction of credit or financing is one means of weakening an otherwise powerful competitor. Only by realization of the tremendous controlling power of the service of financing will farmers be led to appreciate the value of financial independence in their marketing organizations.

For marketing concerns which have otherwise failed to secure adequate financing there is the possibility of delaying payment until proceeds of sale are received. While private middlemen have practiced this scheme in the past, few do so at present. Farmers know that a strong competitor is capable of paying in advance either because of the amount of capital employed or because advances or loans are obtained upon

warehouse receipts. However, members of coöperative marketing associations do not fully realize that in attempting to have their products efficiently marketed by their own middlemen, financing is just as essential as it is for private middlemen. Where adequate resources cannot be provided by members of these associations, farmers may finance their operations in large measure by waiting for the money to be sent them by purchasers rather than to insist on payment at or previous to the date of shipment. This is the accepted practice of the California Fruit Growers' Exchange,[1] and recently was adopted as a means of partial temporary financing by the Wisconsin Cheese Producers' Federation.

It takes time for products to move from farms to successive middlemen and from them to consumers. The lapse in time between the shipment of cheese to wholesale grocers and the receipt of money in payment therefor by the Wisconsin Cheese Producers' Federation averages a period of one month. By waiting for money to be received from wholesale grocers the members of this coöperative cheese distributing organization could finance the marketing of cheese for this period. Because they have been unwilling to wait for the money to come from the sale of their product, outside resources have been relied upon by the Federation for funds with which to make advances to its members upon their unsold cheese. These advance payments, averaging $95,000 per month and ranging from $2500 to $256,000 monthly, have constituted the major part of the circulating capital required by this marketing enterprise. By waiting for the return of money for their products when sold, farmers are able in large measure to relieve their own marketing undertakings of the severe problems connected with financing. In fact, postponement of payment making unnecessary any advances enables farmers to fully finance certain phases of marketing.

[1] *Coöperation in Agriculture*, Powell, pp. 243–244.

For those products whose orderly distribution requires controlled feeding of the market, made possible only by storing surplus commodities until they are needed, adequate financing is facilitated by loans upon warehouse receipts as collateral. Products properly graded, packed and stored have long been accepted as collateral, but not until recently have farmers awakened to the value of this possibility as a means of more adequately financing their coöperative marketing companies.

SUMMARY

1. Either farmers or middlemen must wait for their money until consumers pay for products. While those who do the waiting render the service of financing, in reality they do this only because it pays them. To stimulate this waiting or saving, consumers necessarily must give high prices as premiums for the same reasons that premiums must be given to obtain quality products. In the final analysis consumers indirectly finance all productive effort of a commercial character. They do this by paying the ordinary costs of production and such additional premiums as may be required to induce others to wait temporarily instead of themselves saving funds to be advanced to farmers and middlemen.

2. Marketing concerns need capital of two kinds: (1) equipment or permanent capital, and (2) circulating or supply capital. Much more circulating capital is required than equipment capital. Failure to recognize this need has been a prolific cause of business failures among both private and coöperative companies.

3. Capital may be obtained (1) from owners of the business, or (2) from numerous outside sources either through commercial credit or other channels. In any case some one first must have saved a part of his income and then have made it available to those requiring productive financing.

4. The soundness of financing from the lender's point of view depends upon the certainty with which the borrower will be successful as a producer and will live up to the letter and spirit of his agreements. From the borrower's point of view soundness depends upon the certainty of receiving adequate funds at all times to meet the needs of changing business conditions.

5. Savings may be brought about voluntarily or by compulsion. If voluntary saving provides inadequate capital for the efficient rendering of essential marketing services, compulsory saving in one form or another is necessary and desirable.

6. All efficient productive effort whether by farmers, middlemen, or other producers justifies financing in accordance with the productive needs of the borrowers.

7. Local circumstances and expediency prevent the formulation and use of standardized methods of financing. In practice capital is obtained by successful marketing companies from any one or more of many sources of saving.

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CHAPTER X

DISTRIBUTING FARM PRODUCTS

IF the service of distributing raw materials produced on farms and the finished commodities created from them were discontinued for the short period of one month in winter, millions of people in the United States would be starved and frozen to death. That the marketing system which constantly averts this kind of catastrophe is not comprehended by the public is the chief reason for the current widespread condemnation of middlemen and marketing. That the system of marketing is far from perfect must surely be evident to all, but the reasons can be explained only by careful investigation showing the nature of practical conditions and problems. The first practical question is, "Where are the consumers and what do they want?" The second practical question is, "Where are the farmers and what products have they which consumers desire?" The third question logically follows, "How do products on farms get to consumers?" To comprehend the problem of marketing requires a knowledge of the basic facts which answer these inquiries.

Location of Consumers. — According to the 1910 census,[1] 46.3 per cent of the people of the United States lived in 2402 cities having populations ranging from 2500 to 4,766,883; 8.8 per cent lived in towns of less than 2500 persons; while 44.9 per cent lived throughout the open country. The striking differences in conditions prevailing for consumers living respectively in cities, in towns, and in the open country

[1] The 1920 Census data not available.

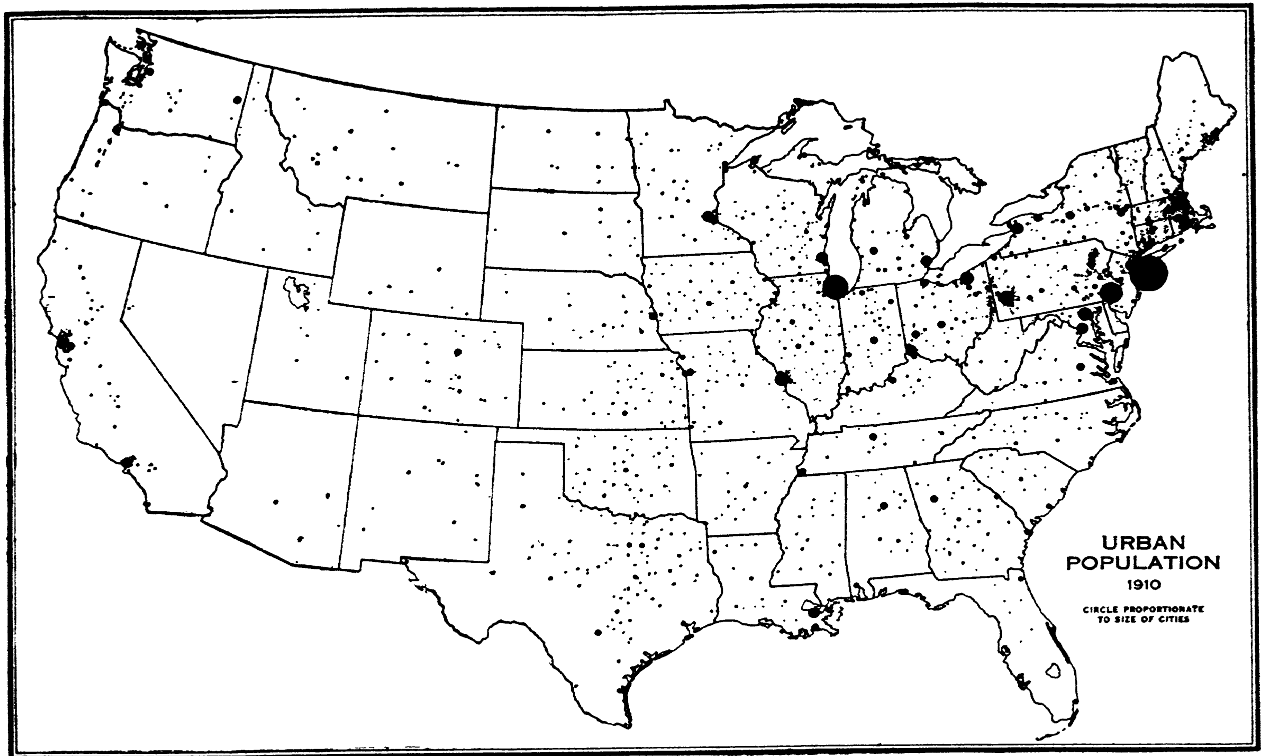

FIG. 28.—CITY POPULATION

The circles show 2402 cities of 2500 persons or more. The sizes of circles indicate the relative sizes of the cities. All combined contained 46.3 per cent of the total population or consumers of the country in 1910. Most of the city dwellers are east of Iowa. (Courtesy U. S. D. A., Office of Secretary.)

are revealed by the comparative densities of population. Facts arranged in Table XXVI show that cities are literally crowded with people to such an extent that there are from 5500 to more than 14,000 consumers per square mile. In towns the density of consumers is less, ranging from about 200 to 5000 persons per square mile. In direct contrast to the concentrated location of city and town consumers is the scattered character of the country population or farmer

TABLE XXVI. — LOCATION OF THE POPULATION OF THE UNITED STATES [1]

Population of City or Community	Per cent of Total Population	Population per Square Mile	Number of Places
Urban territory	46.3	—	2,402
Upward of 1,000,000	9.2	14,121	3
500,000 under 1,000,000	3.3	13,685	5
250,000 under 500,000	4.3	5,521	11
100,000 under 250,000	5.3	5,554	31
50,000 under 100,000	4.5	Varies from 1,000 to 5,000	59
25,000 under 50,000	4.4		120
10,000 under 25,000	6.1		372
5,000 under 10,000	4.7		476
2,500 under 5,000	4.5		969
Town territory under 2,500	8.8	200 to 2,500	11,784
Country territory	44.9	14	—
Total population	100.0	31	6,361,502

consumers, who number only 14 per square mile the nation over, or from one half person per square mile in Nevada to 64 persons per square mile in New Jersey. To visualize even more clearly the extremes in density of consumers within their respective locations, data in Table XXVII are helpful. The heart of New York City with an area of 63 square miles had 43,850 people for every 640-acre section of land. Manifestly the task of placing farm products with these consumers is very different from that of

[1] United States Census, 1910, Vol. I, p. 64, Table 40.

placing commodities with the widely scattered farmer consumers in Nevada, where the rural population amounts to only one half person per section of land. That the marketing system must be designed to meet the varying needs of consumers averaging 6400 persons per square mile for cities having 100,000 or more people, possibly 2000 per square mile in small cities and towns, and around thirty per square mile in the open country, is a requirement of the utmost significance. Of this more will be said presently.

TABLE XXVII. — COMPARATIVE DENSITY OF POPULATIONS IN CITIES, SUBURBS AND COUNTRY[1]

PLACE	DENSITY OF POPULATION	PER CENT OF TOTAL POPULATION LOCATED IN PLACE DESIGNATED	LAND AREA OF PLACE IN SQUARE MILES
New York county, N. Y.[2]	43,850	3.0	63
New York City	16,609	5.2	287
Chicago	11,812	2.3	185
Kansas City, Mo.	4,210	.3	59
Forty-seven central cities	6,400	21.2	3,053
Forty-seven cities, including suburbs	945	29.3	28,583
Suburbs of forty-seven cities only	293	8.1	25,530
Iowa rural population	20	1.7	55,586
South Carolina rural population	38	1.4	30,495
New Jersey rural population	64	.7	7,514
Nevada rural population	½	—	109,821
United States total population	31	100.0	3,026,789

What Consumers Want. — Consumers depend for their existence upon food and clothing as two of the chief necessities of life. Food expenditures take about 38 per cent of the income and clothing approximately 17 per cent. The food consumed by the typical family falls into ten general classes,

[1] Data from *U. S. Census, 1910*, Vol. I, pp. 22, 74, 75, 77; Vol. II, p. 618; Vol. III, pp. 88, 140, 232, 658.

[2] Represents most densely populated county included in the city of New York.

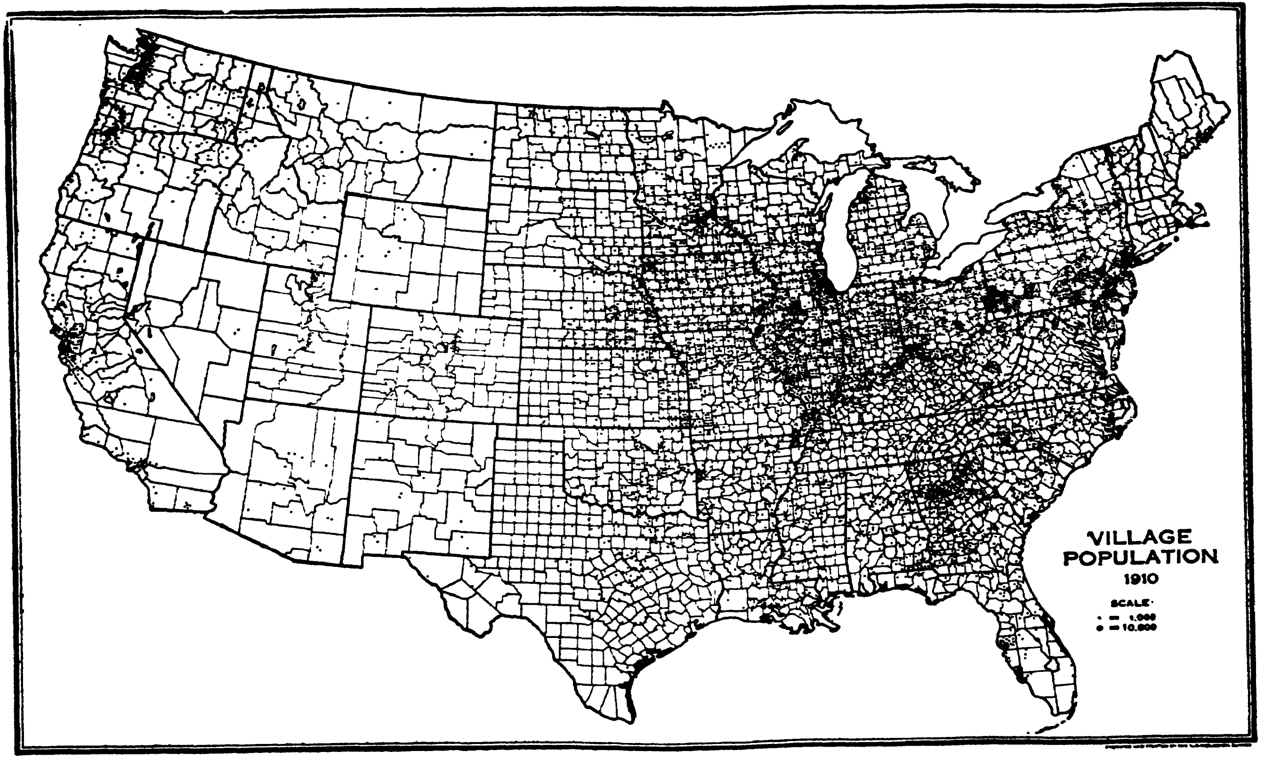

FIG. 29. — TOWN POPULATION

The dots show 11,784 villages, towns, and small cities of less than 2,500 inhabitants. Their combined population amounted to 8.8 per cent of the total population or consumers of the country in 1910. Here again most of the population is east of Iowa. (Courtesy U. S. D. A., Office of Secretary.)

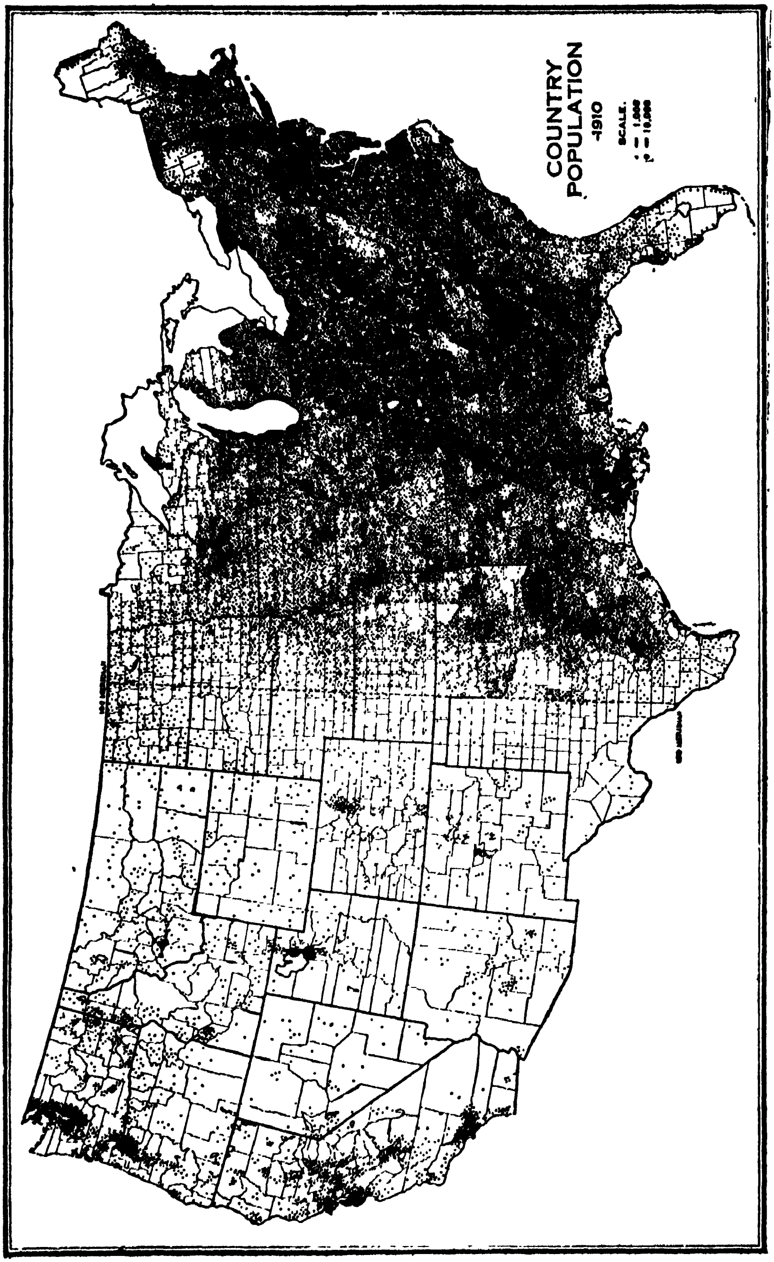

FIG. 30. — COUNTRY POPULATION

The dots show where the country inhabitants of the United States are located. It included 44.9 per cent of the total population, most of which is east and south of Iowa and Kansas. (Courtesy U. S. D. A., Office of Secretary.)

the apportionment of which is shown in Table XXVIII. Each of these classes of food is subject to innumerable divisions according to variety or quality and locality where produced by farmers. Thus, meats may refer to bacon or ham or fresh pork or lard derived from hogs grown in Iowa, or it may mean beef from grass-fattened cattle from Texas. Again meat may refer to any one or all of the hundreds of different prepared meats such as pickled pigs' feet, head cheese, potted

TABLE XXVIII. — FOOD EXPENDITURES OF REPRESENTATIVE AMERICAN FAMILIES [1]

ITEM OF FOOD	PER CENT OF TOTAL COST OF FOOD
Meats and fish (including poultry and shell fish if used)	34.3
Grain products	17.4
Vegetables	10.1
Milk (including cream if used)	9.6
Butter and other fats	8.6
Eggs	5.7
Fruit (and nuts if used)	5.0
Sugar, molasses, etc.	4.5
Cheese	1.0
Miscellaneous [2]	3.8
Total	100.0

meats, corned meats, dried meats, and others. Some consumers in every community are demanding these widely differing finished foods made from raw materials produced by farmers in diverse parts of the United States and even in foreign lands. So it is with each of the ten classes of foods. The basic raw material, produced in surplus in this state or that, either near by or distant, must be broken up into the kind and quality of product which the consumer is willing to pay for. For each community of consumers a large pro-

[1] *Chemistry of Food and Nutrition*, by Sherman, Henry C., p. 388.

[2] Tea, coffee, and other food adjuncts were usually but not always reported under this heading. The reported average is therefore somewhat below the truth.

portion of these consumable goods somehow must be made available. At the present time the service of carrying an adequate stock of these goods which consumers want, and of delivering them to consumers on request in such amounts as are needed, is rendered by the retailer.

To cater to the extremely large variety of food wants of a community of consumers requires that successful grocers carry on their shelves hundreds of varieties of food brought together from all parts of this country and to a considerable extent from other lands. Thus in tracing the origin of each of the products which the city consumer buys it is found that coffee comes from Brazil; tea from China, India, or Japan; sugar from Cuba; spices and bananas from tropical lands; oranges from California; grapefruit from Florida; apples from the states of the Northwest; cantaloupes from California and Colorado; peaches, apricots, pears, prunes, raisins, almonds, walnuts, and other items from California; cotton, peanuts, sweet potatoes, and many vegetables from the southern states; rice from Louisiana and Texas; flour and wheat from the Dakotas, Minnesota, Kansas, and Nebraska; hogs and pork products from Iowa, Nebraska, Illinois, and Indiana; and so the list of special producing regions might be continued almost indefinitely.

When the consumers' wants for clothing are considered, it is found that here also great variety and many qualities are sought by those whose tastes and customs, not to speak of their means and judgment, are exceedingly variable and different. The simplest kind of classification of clothing shows impressively the numerous items which constitute the basis of customary dress, as the following indicates.

CLOTHING NECESSITIES OF THE AMERICAN FAMILY[1]

1. Suits, dresses, shirtwaists, waists, etc.
2. Underclothing.

[1] Taber, C. W.: Adapted from *The Business of the Household*, p. 62. J. B. Lippincott Co.

3. Overclothing, wraps, cloaks, sweaters, capes, etc.
4. Hats, shoes, and gloves.
5. Accessories, as collars, ties, etc.
6. Night clothing, bedding, linen, etc.

When it is recalled that these six classes of clothing are made either wholly or in part from cotton, wool, silk, and mountain silk or from any combination of these basic raw materials, each subdivided according to quality, a picture is gained of the well-nigh endless variety of clothing demanded by consumers. As with the grocer, the clothing retailer, if he would cater to the consumers of a given community, is obliged to carry a stock of goods consisting of numerous varieties and qualities. The origin of these goods if traced would lead to the Orient for silk, and mountain silk; to the southern states for cotton; and to England, Australia, and other British overseas dominions as well as to some of our own states for wool. Leather for shoes comes from numerous states supplemented by immense imports from Argentina and other countries.

The answer to the first question, "Where are the consumers and what do they want?" may be summarized briefly. More than one fifth live exceedingly close together in cities of 100,000 or more population and average 6400 persons per square mile. Practically one third live close together in towns and cities of less than 100,000 population, the number of persons per square mile varying from 200 to 5000. The rest of the population, about five elevenths of the total, live in the open country and usually number about 30 per square mile. (See Figs. 28, 29, and 30.) All of these consumers require food and clothing in great variety and of many qualities. That city consumers are accustomed to more lavish expenditures for greater variety and higher quality of food and clothing does not diminish the importance of the fact that country consumers also require numerous varieties and qualities of finished goods.

WHEAT

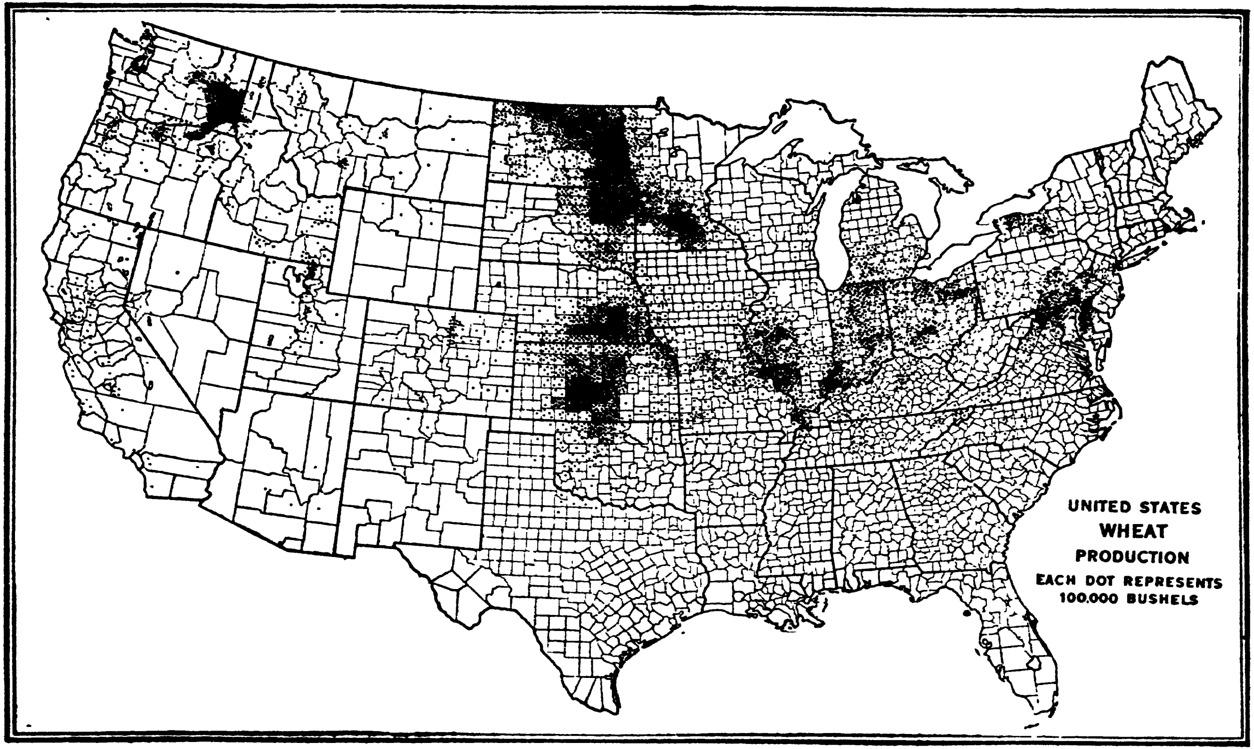

FIG. 31. — WHEAT PRODUCTION

Most of the wheat crop of the country comes from a few states either to the north or west of Iowa. Great distances lie between most of the wheat farms and most of the consumers. (Courtesy U. S. D. A., Office of Secretary.)

Location of Farmers. — While farmers are located on 6,449,998 farms (United States Census, 1920) scattered over more than three million square miles, the commodities which they produce are by no means the same on all farms and in all states and counties. In fact, farming is highly specialized so that commercial quantities of various raw materials like cotton, wheat, hogs, cattle, wool, oranges, vegetables, potatoes, rice, tobacco, apples, and many other commodities representing raw materials chiefly come from one or a few districts which cover parts or all of one or more states. This fact is illustrated by the localization of wheat, swine, and citrus fruit production shown in Figures 31, 32, and 33. That marketing must move the surplus from these special producing regions is emphasized in Figure 34.

What Farmers Produce. — That the commodities produced by farmers are mostly raw materials unfit as such for immediate use by consumers is an incontrovertible point of fundamental importance. Consumers do not want the products which farmers have in the form of raw materials. Not until the form of these goods has been made suitable for use do consumers want the commodities of farms. Thus for wheat, live stock, cotton, wool, and similar raw materials, representing fully three fourths of the value of all farm products, consumers have no direct demand. Their wants are for the finished goods ultimately derived from these raw materials. On the other hand, there is a direct consumer demand for products turned out on farms in their finished, consumable form like fruit, vegetables, potatoes, milk, and similar commodities. Goods of this kind, however, represent not more than one quarter of the total value of the annual agricultural output.

How Farm Products Move to Consumers. — Let us now answer the second question. It has already been indicated that three fifths of the consumers are concentrated in a com-

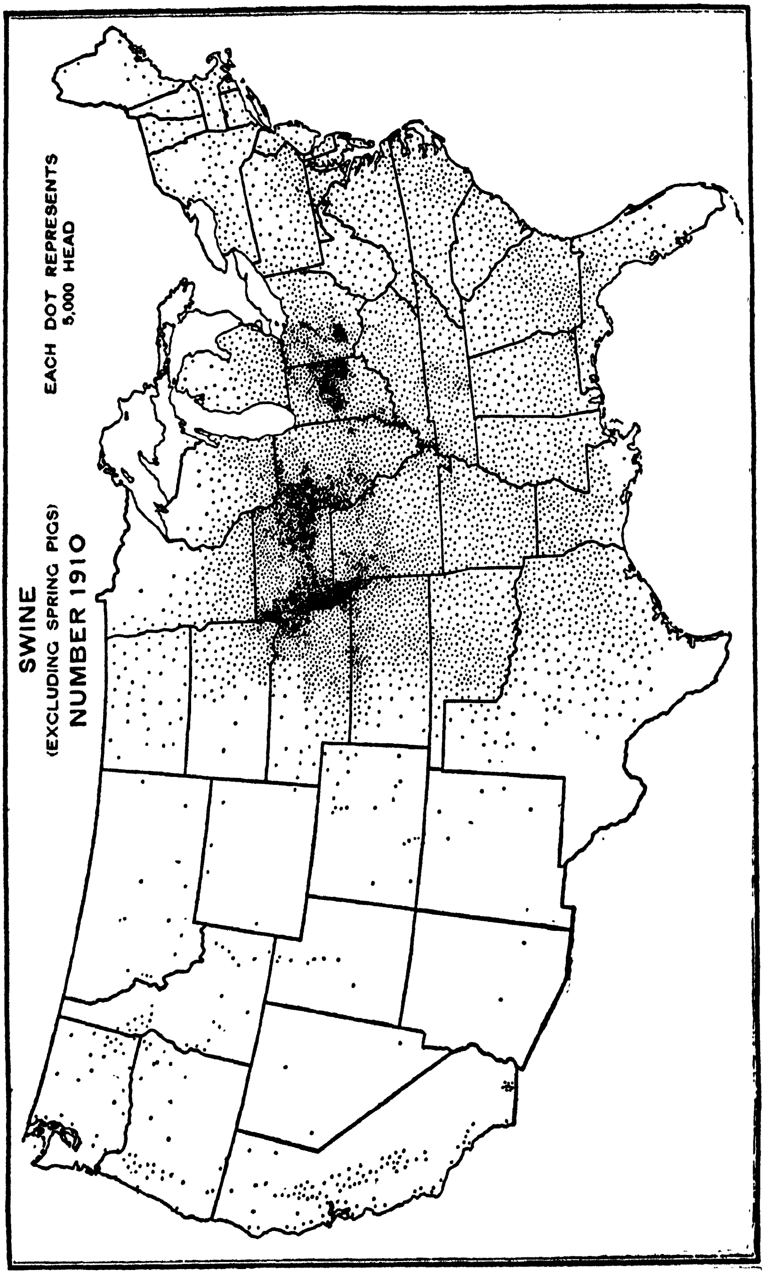

FIG. 32. — SWINE PRODUCTION

Most of the swine are produced west of Chicago, so that long distances intervene between farms where hogs are a principal product to the East, where most of the consumers live. (Courtesy U. S. D. A., Office of Secretary.)

paratively small number of places and two fifths are exceedingly scattered, while farmers are all widely distributed over the open country. This means that there are unavoidably varying distances between farmers and consumers. The usual distance for the bulk of farm products, like wheat, live stock, cotton, wool, and other articles, differs from possibly 100 to 1000 miles. Over this distance, from the millions of farms, surplus raw materials must be started toward

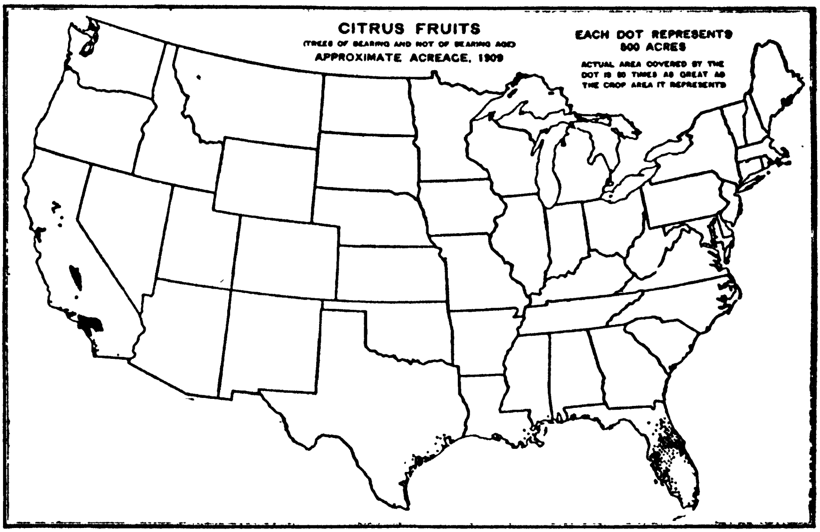

FIG. 33.—CITRUS FRUIT PRODUCTION

Most of the citrus fruits are produced 1000 miles or more from most consumers. Most oranges grown in California must go 2500 miles to reach the majority of consumers. (Courtesy U. S. D. A., Office of Secretary.)

their destination at the residences and eating places of millions of consumers. In the course of this movement raw materials which are not desired by consumers have to become finished products for which there is then a keen demand. In answer to the third question, "How do products on farms get to consumers?" therefore, a long story is necessary to show how private, coöperative or governmental middlemen rendering one or all of the essential marketing services, bring about the movement of farm raw materials in such quantity, variety,

quality, and over such distances and at such times that consumer needs and demands are satisfactorily met.

Basic Facts concerning Distributing of Wheat and Flour.—Let us follow, for example, the movement of wheat from farmers to a mill and from there to consumers. In a general way this movement is pictured in Fig. 35. The shaded area represents the important part of the spring wheat region of

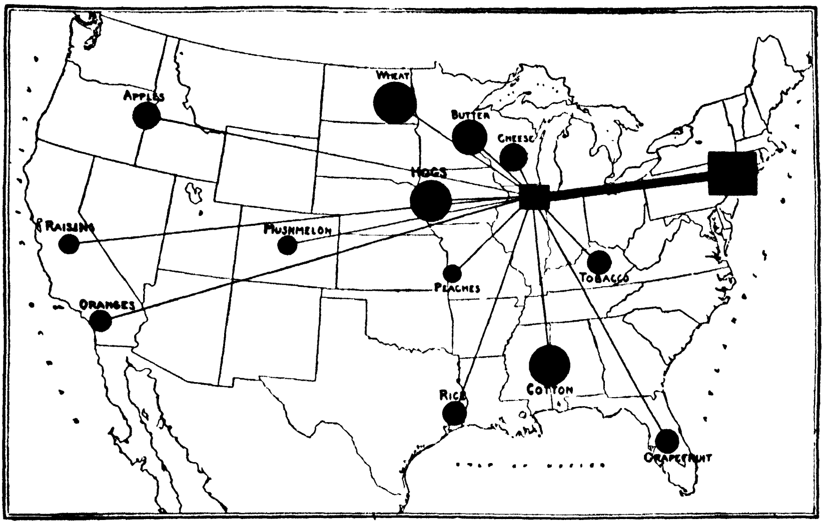

FIG. 34. — FARM PRODUCTION IS SPECIALIZED

From facts concerning wheat, swine, citrus fruit, and many other farm commodities, it is evident that important quantities of surplus production come from regions of specialized farming, as indicated by the circles in the chart. Most of these regions are long distances from the dense consuming sections and hence require specialization in marketing to move their output to markets. This specialization is done by middlemen. (See text, pages 184, 185, 187.)

the United States. The small square (I) in this shaded area represents a local wheat producing community consisting of 110 farmers centering about one shipping point and containing at least one grain elevator. The large black square at the edge of the wheat region (II) represents Minneapolis which, of course, includes flour mills, terminal elevators and a grain exchange. To illustrate the part played by a grain exchange the black square (III) near Lake Michigan represents either a grain exchange or a brokerage system, equivalent to a sales

agency, as the case may require. The large circle near the Atlantic coast (IV) represents the consuming territory in and surrounding New York where the population is large and exceedingly dense. Each of the small circles surrounding the black central circle and joined with it by lines, corresponds to the circle (V) in a southern state directly below Lake Michigan. These small circles represent consuming

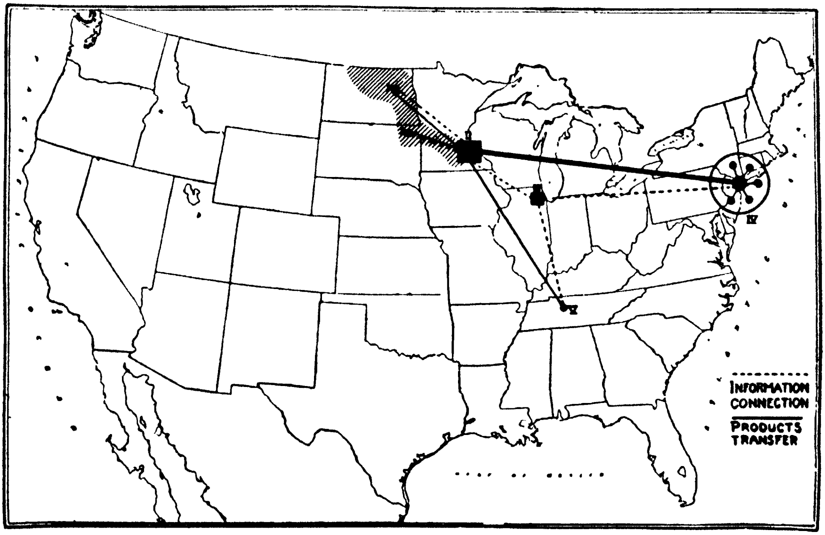

FIG. 35.—METHODS OF MOVING PRODUCTS TO CONSUMERS

Products may themselves be started in roundabout search for markets, or information may be secured first as to the best market and products thereby shipped direct. The broken lines indicate information connections between local shipping points (I) and mills or terminal elevators (II) and from these to central exchanges or brokerages (III) and finally to large consuming regions (IV) or small consuming regions (V). The solid black lines picture the idea of shipping products direct between the points where wheat, for example, is grown to where it is processed into flour and then as flour moved to consumers. No system is justified which does not get facts first and ship direct as far as possible. (See text, pages 190 ff., 204 ff.)

areas from which flour is not reshipped to other places. Taking the map as a unit it suggests the movement of wheat away from local shipping points to places where it is milled eventually, and then in the form of flour distributed either through primary receiving and reshipping points, such as New York, or directly to final consuming points such as a small city in Tennessee.

Facts of Wheat Consumption and Production Compared. — In tracing wheat from producer to consumer it should be realized that probably no other agricultural commodity, on the whole, is so readily handled. It pours like water, and is consequently moved rapidly in large quantities by causing it to flow in pipes or to be drawn about by suction. Wheat is the simplest and easiest product to market out of all the farm raw materials which require processing before consumers can make use of them.

Based on the patronage of a large number of elevators, farmers in the wheat belt approximate 1150 bushels of wheat per farmer. When milled this quantity of grain makes 250 barrels equivalent to 1000 sacks of flour, each weighing forty-eight pounds. Because consumers use only six bushels of wheat per capita, which, in the form of flour amounts to only 5.2 sacks of forty-eight pounds each, a single wheat farmer grows wheat enough to make the flour for almost forty families of five members each. The question commonly asked, "Why do not these forty families buy directly from the one farmer?" is best answered by stating what each party would have to do to bring this about. The farmer would first be obliged to make his 1150 bushels of wheat into flour. Then it would be necessary for him to get in touch with forty separate families none of whom are buying twenty-six sacks of flour at any one time. Past experience, unbiased thinking and sound judgment have branded this particular plan of direct marketing as impractical and uneconomic because of sheer physical impossibility when attempted over large areas. In fact, few, if any, nowadays purchase more than one sack at a time, and a large proportion do not buy flour at all, but get it in the form of commercially baked bread. That these forty families for each wheat grower would be hundreds of miles distant and widely scattered is a fact established by the location of the consuming popula-

tion in comparison to the regions of wheat production. Some form of division of labor is necessary if wheat is to be dependably and cheaply moved to each of forty distant and uncertain consumers for every farmer specializing in the growing of wheat.

The Commercial System of Distributing Wheat and Flour. — Because farmers do not and cannot make flour from their wheat nor market flour in small quantities as cheaply as this work can be done by specialists, the commercial system has developed the flour milling industry. According to the statistics of operating and selling costs for flour mills gathered by the United States Grain Corporation,[1] the large mills of Minnesota had by far the lowest flour manufacturing costs in the United States. Their cost, in fact, was 20.65 cents per barrel while the closest competitor mills of Missouri, most of which are located in Kansas City, averaged 39.48 cents per barrel. The fifty-eight mills of Minnesota averaged 466,968 barrels output of flour, while the eight Missouri mills averaged only 266,323 barrels. Flour milling is most economically accomplished on a large scale. From these facts it is realized that the output of a mill large enough to be truly efficient is usually very large. To have a large supply of wheat requires contributions from many farmers and necessitates disposal to enormous numbers of consumers. Herein lies the very essence of the problem of distributing. Numerous farmers cannot change the form of their raw material and transfer the finished commodity to consumers outnumbering them forty to one, nor can this work be efficiently done by a single mill unless it has connections with farmers through elevators and with consumers through wholesalers and retailers.

Why Farmers Usually do not Ship Wheat directly to Mills. — The complexity of assembling adequate wheat for

[1] United States Grain Corporation, Grain and Flour Statistics, During the War, p. 6.

an efficient mill and of distributing its flour output to consumers is amply illustrated in Table XXIX. An efficient mill using 642,354 bushels of wheat relies upon 5.07 elevators to bring the grain from 558 farmers. In turn the flour is disposed of to 12 wholesalers and from them it goes to 360 retailers who eventually sell the flour to 21,600 families representing 108,000 consumers. In answer to the question, Why do not these 558 farmers each send their wheat directly to the mill, let it be said that the individual farmers have only $1^1/_7$ car loads of wheat apiece. To market this economically requires shipment in car-load lots only. Were all these farmers to ship their grain individually shortly after harvest, the mill would be obliged to maintain a terminal elevator of its own to store the entire quantity. But because economical mill operation calls for relatively uniform monthly output of flour, and since the mill does not own a terminal elevator it is not able to handle a year's supply of wheat at one time. For this reason farmers cannot generally ship in car-load lots directly to the mills. Under these circumstances, if farmers were to ship directly they would be obliged to freight their grain in less-than-car-load lots as a rule. To avoid the high expense of such a plan they prefer to patronize elevators which, in this instance, handled 126,682 bushels of wheat each.

An elevator rendering service to one hundred and ten farmers has a volume of business amounting to 127 car loads a year or 10½ car loads per month. It can, therefore, readily ship grain in car-load lots at a number of different times in accordance with mill requirements. Especially is this true of local elevators which are constructed for storage of surplus grain locally. In case local elevators cannot store wheat and farmers do not, terminal elevators owned and operated by either private concerns, coöperative organizations or the state are a necessary step between local elevators and mills for a considerable portion of the wheat crop. With wheat stored either

TABLE XXIX. — NUMBERS AND VOLUME INVOLVED IN MOVING WHEAT FROM FARMS AND FLOUR TO CONSUMERS

Quantity for Each Party from Farmer to Consumer	Farmer Growing Wheat	Elevator with One Hundred and Ten Farmer Patrons	Mill Depending on		Wholesalers with Thirty Retailer Customers	Retailer with Sixty Consumer Families	Family of Five Consumers	One Consumer
			5.07 Elevators for Wheat	Twelve Wholesalers to Move Flour				
Bushels of wheat, yearly	1,150	126,682	642,354	642,354	54,000	1,800	30.	6.
Barrels of flour, yearly	250	27,540	139,642	139,642	11,700	390	6.5	1.3
Sacks (48-lb) of flour, yearly	1,000	110,160	558,568	558,568	46,800	1,560	26.	5.2
Cars of wheat, yearly	1 1/7	127	642	—	—	—	—	—
Cars of flour, yearly	—	—	—	465	39	1 1/3	1/50	1/250
Cars of wheat, monthly	1/10	10½	53½	—	—	—	—	—
Cars of flour, monthly	—	—	—	39	3¼	1/9	Insignificant	Insignificant
Cars of wheat, weekly	1/50	2 2/5	12 1/8	—	—	—	—	—
Cars of flour, weekly	—	—	—	9	¾	1/48	Insignificant	Insignificant
Total number involved in each group	558	5.07	1	1	12	360	21,600	108,000

in local or in terminal elevators or in both, it is possible for the mill to obtain adequate wheat monthly to permit uniform operation so far as market demands for flour permit.

Emphasis should be placed on the fact that the mill in the illustration ground 12⅓ cars of wheat per week or 1¾ cars a day in contrast to a pro-rated daily output of wheat per farmer of only $^1/_{50}$ car load. These extremes are the real reason why a local elevator must serve both farmers and the mill. Moreover, because the mill is large it has to secure a supply equivalent to the entire output of more than five elevators.

Why Consumers do not Buy Flour Direct from Mills.—Frequently the question is asked, "Why do not consumers without intermediaries buy flour direct from the mill?" The real answer is that neither the mill nor consumers want to or can afford to engage in this sort of transaction. The reasons for this are clear enough. The mill makes 465 car loads of flour, which amounts to 39 cars per month, 9 cars per week or $1^2/_7$ cars a day. To have this flour transported economically requires that it travel in full car loads just as much as possible. That it cannot be sent in car lots to the consumer is certain. One individual consumer uses not to exceed $^1/_{250}$ of a car load of flour in a year. A family of five members buys only $^1/_{50}$ of a car load annually. Manifestly, therefore, the mill, even if it were able to handle orders from 21,600 consuming families, could not ship the flour in these minute lots at a freight cost small enough to permit it to quote prices as low as retailers now charge.

Why Retailers usually Do not Buy Flour Direct from Mills.—Many consumers wonder why the retailers with sixty families of consumers as regular customers do not buy their flour direct from the mill. Here again the reason is readily discerned. The average retailer supplying sixty families with flour is able to sell only $1^1/_3$ car loads of wheat per year. Since the

retailer purchases supplies in small amounts because he has little if any storage space and because successful retailing demands quick sales and rapid turnover of capital, he cannot buy even a small fraction of a car load of flour at any one time. How, then, is the retailer to secure flour from the mill?

What the Wholesaler Does for the Retailer and the Flour Mill. — In a fairly representative small city 160 retailers met the needs of 45,000 people, while five wholesale houses supplied the retailers with the bulk of their commodities.[1] With 30 retail concerns for each wholesale firm, the latter do a business in flour amounting to 39 car loads annually, or 3¼ cars each month. The wholesaler therefore can buy flour in car-load lots and turn his money rapidly as well. To the small retailer he makes possible the purchase of flour in suitable quantities which has been brought from the mill at a reasonable instead of a prohibitive freight cost. To the mill, on the other hand, the wholesaler has sent one order to be filled in car-load amounts which otherwise would have represented 30 orders, each for less-than-car-load lots. That the mill is obliged to deal with only 12 wholesalers instead of 360 retailers means important savings in selling costs and bookkeeping expense, not to speak of eliminating credit risk, otherwise involving a certain amount of inevitable losses through bad accounts. In a very real sense the wholesaler is the expert buyer for the small retailer, thus relieving him of this important duty. Similarly the wholesaler renders to the mill an important phase of the work which must be done by some one if the enormous supply of flour made by it is to be gotten to the consumer. In one transaction the wholesaler reduces both the buying expense of the retailer and the selling expense of the mill by himself doing as one man what two other men would otherwise have to be employed for, the one as a mill salesman, the other as a retail buyer.

[1] Wisconsin Exp. Sta. Bul. 324.

Principles Underlying Wheat Distributing Applicable to Most Farm Products. — If one doubts the principles underlying the distributing of wheat and flour, let him examine the basic facts concerning the shipping of hogs and their distribution as fresh or cured pork products. Consider, for example, the movement of hogs from farms to a local pork-packing plant killing 120,000 hogs annually, and the flow of edible pork products to consumers. A simple picture of the movement of hogs and pork products is given in Table XXX, based upon the number of hogs raised by the usual corn belt farmer and the quantity of pork products handled by the respective kinds of middlemen and taken by the average consumer. That a packing plant killing only 120,000 hogs should require all the hogs produced by 3000 farmers and in turn possess a volume of finished commodities to supply 36,000 consumer families strikingly tells the story why marketing is not conducted direct from these farmers to this number of consumers. The fact that consumers do not have on hand food supplies to last more than a few days means that if farmers with only 1/100 of a car load of hogs to market weekly were obliged to send them direct to consumers, shipping would be entirely by less-than-car-load lots. Freight cost would be excessive even were there no obstacles to the making of satisfactory connections between farmers and consumers. Upon examining the volume of business of retailers, who customarily do not maintain stocks of goods for more than a few weeks at most, it is found that their individual purchase of 1½ car loads of pork products per year makes impossible direct purchase and shipment between packing plant and retailer. Thus the wholesaler who serves as an intermediary between retailer and packing plant appears to be an economic necessity because he is able to take approximately one full car of pork products each week for resale among his retail customers.

TABLE XXX. — NUMBERS AND VOLUME INVOLVED IN MOVING HOGS FROM FARMS, AND PORK PRODUCTS TO CONSUMERS

Quantity for Each Party from Farmer to Consumer	Farmer Raising Hogs	Country Shipper with One Hundred Farmer Patrons	Packing Plant Depending on		Branch House or Wholesaler with 33 1/3 Retail Customers	Retailer with Sixty Consumer Families	Family of Five Consumers	One Consumer
			Thirty Local Shippers for Hogs	Eighteen Branch Houses or Wholesalers to Move Pork				
Number of hogs, yearly	40	4,000	120,000	120,000	6,666	200	3 1/3	2/3
Pounds of pork products, yearly	6,000	600,000	18,000,000	18,000,000	1,000,000	30,000	500	100
Cars of hogs, yearly	½	50	1,500	—	—	—	—	—
Cars of pork products, yearly	—	—	—	857	48	1½	1/40	1/200
Cars of hogs, monthly	1/24	4 1/6	125	—	—	—	—	—
Cars of pork products, monthly	—	—	—	72	4	1/5	Insignificant	Insignificant
Cars of hogs, weekly	1/100	1	29	—	—	—	—	—
Cars of pork products, weekly	—	—	—	16 2/6	9/10	3/100	Insignificant	Insignificant
Total number involved in each group	3,000	30	1	1	18	600	36,000	180,000

For producers of vegetables, nuts, fruits, and various commodities which become available on farms in their consumable form, these principles of distributing are even more striking than for either wheat or hogs. Oranges are typical of this kind of farm products. Facts concerning their movement from farmers to consumers presented in Table XXXI contrast the small output per farm as well as the insignificant quantity consumed per family with the immense volume handled by the California Fruit Growers' Exchange through its assembling exchanges and distributing agents. Furthermore it illustrates that even where coöperation has consolidated and systematized marketing from farmer to local consuming regions, the local wholesaler still performs an economic service. His justification lies in the fact that he makes possible wholesale fruit shipment in car lots from the district sales agency to the local consuming point where it is divided among his retail customers.

Two Ways of Finding Markets. — Two very distinct policies can be followed in disposing of farm products, or for that matter any other kind of commodities. Raw materials and finished goods may be started upon an indefinite journey toward consumers with no information as to the ultimate destination, buyer or market conditions. On the other hand, shipment may be made in the light of definite knowledge as to both destination, buyer, and the conditions of supply and demand. In the first case products are themselves given a "joy-ride" as a means of finding where they may be sold to best advantage. In the second instance, information first is forwarded from place tountil place specific conclusions are reached as to the best market and based on this knowledge the commodities are forwarded by the least expensive route.

Obviously it is cheaper to locate a market by sending inquiries and receiving replies than to ship the product from

TABLE XXXI. — NUMBERS AND VOLUME INVOLVED IN MOVING ORANGES FROM FARMS AND TO CONSUMERS

Quantity for Each Party from Farmer to Consumers	Farmer Growing Oranges	Orange Packing Plant[1] with Fifty Farmers	District Exchange[2] with Ten Local Packing Plants	California Fruit Growers' Exchange Depending upon		Whole-saler with One Hundred and Fifty Retailers	Retailer with Sixty Consumer Families	Family of Five Consumers	One Consumer
				Two Hundred Locals and Twenty District Exchanges for Fruit	Fifty-two Territorial Sales Agents to Move Oranges				
Dozen of oranges, yearly	15,000	720,000	75,000,000	1,500,000,000	28,750,000	112,500	750	12½	2½
Boxes of oranges, yearly	1,200	60,000	600,000	12,000,000	230,000	9,000	60	1	1/5
Cars of oranges yearly	3	150	1,500	30,000	577	22½	1/7	1/400	Insignificant
Cars of oranges monthly	¼	12½	125	2,500	48	2	1/80	Insignificant	Insignificant
Cars of oranges weekly	3/50	3	29	577	11	½	Insignificant	Insignificant	Insignificant
Cars of oranges daily	Insignificant	2/5	4	82	1 3/5	1/14	Insignificant	Insignificant	Insignificant
Total number involved in each group	10,000	200	20	1	52	1,352	202,800	12,168,000	60,840,000

[1] One box of oranges contains 12½ dozen on an average.

[2] Intermediate step between local associations and California Fruit Growers' Exchange.

point to point until a satisfactory sale is made. The saving of ever so small a percentage of the cost of duplicating freight shipment would pay for many letters, telegrams, etc. In order to send inquiries in answer to which accurate supply and demand facts may be counted upon, it is necessary to maintain either a selling organization or selling connections of a comprehensive character. Large volume of sales is essential if either kind of selling arrangement is to be maintained at reasonable cost or expenditure. The machinery required by a comprehensive selling system consists of dependable representatives to whom inquiries may be sent, who have offices and assistants for the handling of facts concerning supply and demand and for the recording of business transactions.

For numerous middlemen doing a very small annual volume of business and who, for that reason, cannot economically conduct an exclusive selling department of their own, it is customary to market their output through brokers rather than to practice consignment. In other words, the broker provides the services of a relatively comprehensive selling department at reasonable cost to middlemen whose small volume of business prevents them from maintaining their own sales systems. Similarly marketing enterprises which handle a single commodity or but a few products may find it cheaper to rely upon brokers for the service of selling than to develop this service themselves. On the contrary, where great volume of business is assured, whether it consists of one kind of products or of many, marketing enterprises are able economically to maintain individual and highly efficient selling departments or organizations.

Regardless of whether the selling service is performed by men employed by a company's own department or by men employed by other companies, such as brokers or other wholesalers of different kinds, the principle of finding a satisfactory market by first sending out inquiries or "feelers" to

determine the most promising outlet is basic. It is generally less expensive in normal times to engage the services of several middlemen in locating the best market than to consign the goods and waste large sums of money in duplicating freight shipments, in demurrage charges or in excessive expense occasioned by prolonged storage and delays in sale.

Few indeed seem to realize that in the absence of large scale comprehensive selling organizations market information is obtained, not by asking and receiving it, but by bargaining and selling the commodities themselves successively to each of a series of middlemen whose connections and knowledge cause the forwarding of the goods toward the consumer. The knowledge which each of these middlemen possesses is an important part of his stock in trade. He capitalizes upon this knowledge because the majority of middlemen are disconnected and are largely groping in the dark. It is not at all surprising that guessing accompanied by frequent mistakes is the rule among this "hit-or-miss" system of obtaining market information and connections. In fact, the surprise is that the system works as well as it does.

The elements of weakness in this common scheme of distributing have been largely overcome by consolidation of all or a large proportion of local assembling and of local distributing units into comprehensive exchanges, clearing houses, federations, or other trade organizations. Thus the various California coöperative concerns, the American Cranberry Exchange, the various large meat-packing companies and many others have more or less consolidated or industrialized the service of distributing. Where this has been accomplished a few effective company departments or a comparatively small number of brokerages, and in some cases but a single brokerage or exchange, effect scientific distribution of most of the products of a whole industry. Where such comprehensive selling systems have not been developed numer-

ous small company departments or small private brokerage houses endeavor to render the same service, but obviously fall far short of satisfactory accomplishment.

How the Wheat and Flour Distributing System Operates. — Wheat and flour are representative examples of the principles underlying effective distributing. In Fig. 35 the locations of wheat-growing, wheat-flour milling, and flour consuming regions were indicated, together with dotted lines showing information connections and heavy black lines showing that physical movement of the product is direct rather than roundabout. By enlarging each of the points designated numerically as I, II, III, and IV in Fig. 35, it is possible to illustrate the importance of obtaining in advance adequate supply and demand information as a basis for definite and direct shipment rather than to forward products toward some unknown final market. The respective parts of Fig. 35 are therefore enlarged in Diagrams 1 and 2 of Fig. 36 and Diagrams 3 and 4 of Fig. 37.

Information before Hauling Prevents Serious Losses. — A local wheat-producing community is enlarged in Diagram 1 of Fig. 36 to show the various connections between farmers and an elevator and between the latter and various distant markets. A local elevator serves as the market outlet for about one hundred and ten wheat farmers, each of whom averages 1150 bushels to dispose of. In the days before the telephone permitted cheap and expeditious communication with the local elevator, farmers frequently came to town with wheat when the elevator was full and there was no place to unload or to sell their grain. In cases of this kind but one solution was open to them, namely, to haul the load back to the farm. Since the hauling of wheat from farms to shipping points averages more than 7 per cent of its value, one extra haul made necessary by a mistaken trip due to lack of local market information represents a loss of no less than $3.50 when a

50-bushel load is valued at $1 per bushel. Under present conditions farmers are able to prevent this sort of loss by using the telephone and receiving definite information from the elevator management. Thus by contributing a share of $1.75 to meeting the expense of a telephone system or middleman exchange of information, duplication in hauling is prevented and a saving thereby effected. When, by preventing an extra trip in the hauling of only one out of twenty-three loads of wheat, the farmer is able to save $1.75 above the cost of his telephone service for the year, it is no wonder that telephones are popular among farmers!

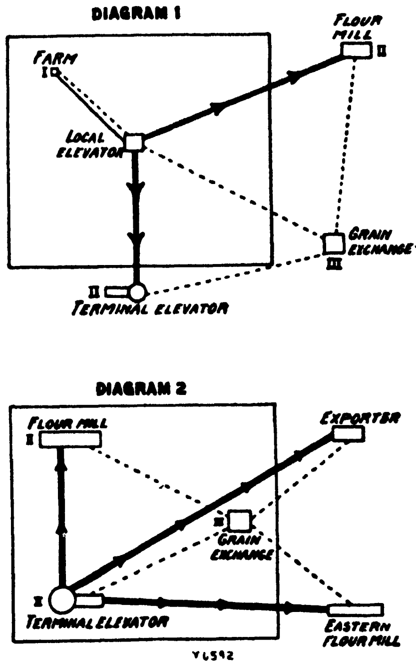

FIG. 36. — MOVEMENT OF WHEAT FROM FARM TO MILL

By telephoning to the local elevator manager first, farmers are able to adjust the hauling of wheat to suit the capacity of the elevator. Similarly by wiring the grain exchange (dotted lines), local elevator managers can obtain information indicating whether favorable or unfavorable prices can be gained by shipping immediately or by postponing it. Movement of wheat from terminal elevators to mills or exporters is also preceded by information contacts gained largely through grain exchanges. (See text, pages 204–208.)

The great service of the telephone exchange, which is the basis of an economical telephone system, is that it enables farmer and elevator operator to reach an understanding as to the movement of wheat from farms to the elevator for a given place and time. Because one hundred and ten farmers harvest more wheat than can be handled, stored or shipped at one time by the local elevator, it would be very easy for farmers to flood the local market were they all by chance to haul their grain at about the same time. But this is prevented because adequate in-

formation connections between these farmers and the elevator manager enable them to conduct their activities in a properly correlated manner. Thus the flow of wheat from farms toward commercial outlets is regulated according to the capacity of the elevator and available car space by information obtained by telephone. That this plan is appreciated by farmers is well known to every one who is familiar with grain marketing at country points.

Sources of Market Information for Local Elevators. — The importance of having some sort of a clearing house for supply and demand facts about grain may be appreciated, when it is remembered that there are upward of 20,000 grain elevators in the United States, each of which must obtain information as to where its grain should be forwarded if it is to sell on the best market. Without some form of satisfactory organization of this kind, the large number of foreign mills and the 350 terminal elevators in the United States which draw upon local elevators for grain would find great difficulty in purchasing grain. So long as the majority of these local elevators, terminal elevators and mills represent individual, disconnected units, no single company or even small number of concerns can obtain relatively complete knowledge of supply and demand conditions. As a consequence, market conditions can only be judged by the current volume and prices of grain sales. Because wheat is a seasonal product, moreover, the question of whether more or less than a normal percentage of the current crop has been consumed at a given time further complicates or makes impossible a reliable prediction as to the trend of future conditions. Thus in marketing wheat, immense numbers of local elevators and grain buyers, each and all acting in the dark without weighing their relative judgments as to supply and demand, would make market information utterly unreliable. In fact, there would be no such thing as market information. Grain would have

to move from local elevators entirely by guess as to what the best probable market outlet would be. Duplicating shipment, flooded markets and sporadic and violent price fluctuation would unavoidably be the rule.

Happily, grain buyers and sellers, even though representing numerous individual, disconnected concerns, are not obliged to operate wholly in the dark and by guess. Just as the farmer can get in touch with his elevator manager by telephone, and as the banker can settle his balances with other banks through a clearing house, so also grain buyers and sellers can arrive at some definite decision as to supply and demand facts about wheat at a grain exchange. Here representatives of local elevators, of terminal elevators, of mills, and of foreign buyers are able to put up their judgments as to what the real facts are, and buy or sell grain upon these judgments, which constitute the best information available. In fact, information thus obtained is more accurate than any could be unless it were secured by one or a few comprehensive, consolidated and country-wide selling systems. By the interchange of facts offered by all kinds of grain middlemen at the grain exchange information is discovered which is sent to local elevators to ship so many cars of wheat directly to flour mills. Or when flour mills are temporarily stocked the word may reach the local elevator that a terminal elevator provides the best market for a given number of car loads. In each case, as Diagram 1 in Fig. 36 indicates, wheat is not shipped from the local point to the grain exchange and then reshipped to the mill or to the terminal elevator. In fact, by settling the question of where the best market is at a given time the grain exchange facilitates direct shipment of grain from the local elevator, by the least expensive route, to the best buyer. In accomplishing this result savings are made which directly correspond to those which the telephone system makes possible for a farmer when

he learns from the elevator management just when to haul his wheat to town.

Grain Exchange Facilitates Rapid Finding of Best Market. — Disregarding all the sentimental misconceptions concerning grain exchanges or clearing houses or selling systems in general, it should be emphasized at this point that an efficient marketing system requires that those who have products to sell be enabled to find the best market with the greatest ease and speed. When prospective buyers are widely scattered the best buyer can neither be found easily, cheaply, nor speedily. On the contrary, if most prospective buyers are represented at a comparatively small number of points with which sellers can readily communicate, the difficulty and cost of finding the best buyer are immensely reduced. That the grain exchange provides a place for the representation of buyers and sellers of grain either in person or by agent is a fact which only the uninformed are inclined to deny. That grain exchanges are severely criticized and that they are open to unavoidable weaknesses and even to abuses is inherent in a system which is made up of enormous numbers of independent participants widely differing in intelligence and efficiency. The weaknesses or abuses condemned are not a part of the fundamental idea of the exchange. (For discussion of the weaknesses of the present marketing system the reader is referred to Chapter XVII.) They are merely inherent parts of a freely competitive middleman business which can be effectively removed only by the establishment of a comparatively small number of comprehensive territorial selling organizations. Whether it be comprehensive selling organizations, or exchanges made up of numerous, disconnected concerns, the point to be emphasized is that this fundamental service of providing local units with definite information as to the best current markets must be rendered by some means. It is this service which makes possible intelligent economic

distributing of farm products from local shipping points to the various intermediate middlemen who finally place the finished goods with consumers.

Information before Shipment of Products. — Underlying all effective distributing systems is this idea of "information first—products direct." Thus in Diagram 2 of Fig. 36 the movement of wheat from terminal elevators to local mills, to distant mills or to foreign buyers, all depends upon the adjustment of market information from which it may be learned that at one time the best market is an exporting point, at another time a local flour mill, and at some other time an Eastern flour mill. Similarly, in the movement of flour, the service of either an efficient sales department or of an expert broker is indispensable. Because of the character of its work, large flour mills cannot economically buy wheat or sell flour in less than car loads. The fact that the mill has some hundreds of car loads of flour to dispose of makes necessary the finding of car-lot buyers. The sales departments of those mills which are large enough to have them, or brokers for mills without sales departments, specialize in finding car-lot buyers of flour.

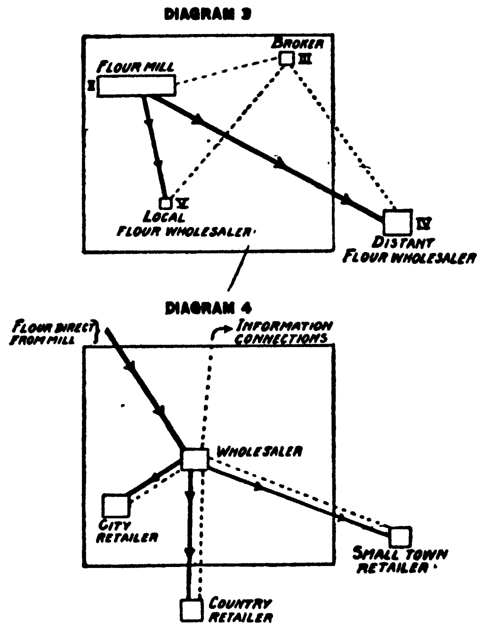

FIG. 37.—MOVEMENT OF FLOUR TO WHOLESALERS AND RETAILERS

Either sales departments of mills or separate middlemen known as brokers specialize in finding where the best markets are at a given time. They do this through information connections (the dotted lines) so that flour may be sent so far as possible in car lot direct (the solid lines) to large wholesalers who ship or deliver in smaller lots to retailers. (See text, pages 209–210.)

After locating these purchasers by means of selling connections and the sending of inquiries to dependable agents, instructions are transmitted to the mill to ship flour direct to either local or distant flour wholesalers, as shown in Diagram 3 of Fig. 37.

Since there are large numbers of small towns requiring a volume of food products too small to justify a resident wholesaler, retailers in such places depend upon large wholesalers who, receiving flour and other commodities in car lots, break them and reship suitable quantities by local less-than-car-lot freight. This is illustrated in Diagram 4 in Fig. 37. In this manner the information connections between country, small town, and city retailers and their supplying wholesaler make possible shipment of flour both direct and in car lots over the greater part of the distance between mills and retailers. As a result not only duplicating freight shipment is prevented, but expensive transporting by less-than-car-lot freight is largely avoided. Thus while the car-lot wholesaler is an additional middleman operating between mills and retailers, his existence is economically necessary. This is the case because the total volume of product needed at a given place is so great that marketing is more economically conducted by transporting this volume of commodities in car loads, in spite of paying for an additional middleman, than for retailers to purchase their small supplies direct from the mills with the much greater expense caused by higher rates for less-than-car-load freight.

SUMMARY

1. Distributing systems cause farm products to move from farms to consumers. The location of both farms and consumers and the conditions surrounding each react upon the distributing system. The marketing system must therefore be flexible to meet the variable conditions under which consumers and farmers live and work.

2. Consumers want variety of both food and clothing. They also desire high quality in these commodities. Raw materials do not interest them.

Their concern is to receive finished products of the right variety, quantity and quality at the proper time and at suitable places.

3. Farm products are largely in the form of raw materials which consumers do not want. In their movement from farms toward consumers they must be converted into finished products.

4. In quantity the output of single farms is too small to permit car-lot shipment. The quantity required by the single family of consumers is also too small to be delivered by car-lot freight. Farmers and consumers for this reason cannot economically buy and sell direct.

5. Processing or the conversion of raw materials into finished commodities is done most economically on a relatively large scale. This means that neither farmers nor consumers are able to do work of this kind for themselves as cheaply as middlemen can do it for them. Large scale processing requires car-lot purchasing of raw material and car-lot selling of finished goods.

6. To furnish processors with raw materials by car lot requires a number of intermediate middlemen known as local shipping point assemblers, such as elevators or shipping associations. To dispose of finished goods a large processor must depend upon other middlemen handling sufficient volume to purchase by car loads.

7. Because retailers cannot ordinarily take more than a fraction of a car load of commodities at any one time, there frequently must be other middlemen handling less-than-car-load quantities in order to subdivide the volume handled in car lots by large wholesalers.

8. Farmers cannot deal directly with consumers because this would require much bookkeeping for which farmers have little time. It would mean prohibitive costs. It would also necessitate that either farmers or consumers make finished products out of raw materials, something which neither is disposed to do.

9. Economic distributing necessitates transporting by car lot so far as possible. More important still it requires accurate information concerning supply and demand conditions and prices at different markets before shipment is undertaken. By getting facts before shipment, operating expenses, occasioned by losses due to duplicating freight cost and to falling prices caused by market glutting, are greatly reduced.

10. Organization which facilitates the determination of market conditions is essential to efficient distributing. Thus grain and produce exchanges and coöperative federations all serve the same purpose of obtaining as nearly accurate information as their capabilities permit as a basis upon which distributing of products then proceeds in the most direct manner.

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CHAPTER XI

DISTRIBUTING FARM PRODUCTS (*continued*)

No phase of marketing farm products is more important than the last step in the commercial system of commodity distribution, namely, the service of retailing. Just as the farmer finds it to his economic advantage to deliver his grain, live stock, cotton, and other raw materials to a private or coöperative middleman, who specializes in rendering the service of assembling for car-lot shipment, so also the consumer finds definite economic advantages in relying upon other private or coöperative middlemen to make available for him in minutely small quantities each of numerous finished products varying exceedingly both in variety and quality.

Why Consumers do not Buy Directly from Farmers. — In the usual discussion of consumer and farmer in relation to the marketing problem it is forgotten apparently that to be an efficient farmer requires the devotion of virtually all of one's time to farm operations. Similarly, to be a consumer capable of purchasing the commodities desired necessitates that practically all of one's time be applied to some form of productive operations. These are the fundamental facts which underlie the productiveness and therefore the success and satisfaction attained by both farmers and consumers. Neither group has time nor energy left over after accomplishing a full day's work at its own special task regularly and seriously to attempt to do what some one else can accomplish more cheaply. Because each man, whether farmer or consumer, has chosen to be a producer in some particular line in accordance with the economic principles of the com-

mercial system, the inevitable result is that farmers and consumers cannot take time nor meet the expense of getting together or of otherwise arranging to transfer their surplus commodities in direct exchange. Physical limitations of distance between farmer and consumer alone destroy the possibility of any appreciable amount of direct marketing in the United States. Numerous other limitations also hinder, but time forbids their enumeration here. In consequence of these basic conditions, division of labor has made possible the creation of indirect contacts between farmer and consumer through the mechanism of the middleman system.

Why the Retailer is Necessary. — The bulk of the important farm products, both in the form of raw materials and finished commodities, is transported in car-load quantities from the middlemen at local shipping points in producing regions to the local wholesalers in consuming regions. Thus products are transported at the lowest freight cost over by far the greatest part of the distance between farmers and consumers. However, when a full car of flour, of pork products, of butter or of oranges has reached the local consuming point the task of distributing is by no means completed. A moment's consideration of the facts will demonstrate this. The usual consumer family of five persons during the course of an entire year does not purchase more than $\frac{1}{46}$ of a car of flour, $\frac{1}{40}$ of a car of pork and pork products, $\frac{1}{200}$ of a car of butter or $\frac{1}{400}$ of a car of oranges. Furthermore, the consumer in buying even these very small fractions of a car load of the various foods is able to take, on any one day, week, or month, only a small part of what he must have for the year.

If economic transportation of products requires their movement in full car loads, so far as possible, how then is the consumer to obtain his insignificant portion of each of numerous car loads of products? It would be absurd even to imagine

that a consumer could purchase by car load, for in that case he would be obliged to locate and enter into business relations with 40 to 400 other consumer families in order to dispose of his surplus purchases. In doing the work connected with such a task, this particular consumer would find all of his time taken from his former field of productive usefulness. Furthermore, if he persisted in this service of distributing commodities to consumers, he would certainly lose his former position and be obliged to collect an income from his recently acquired circle of family buyers in order to derive compensation for his services. Thus the consumer who might choose to purchase in car-load quantities would find himself inevitably converted into a large-scale retail middleman.

According to census figures there were 51,048 wholesalers and 1,195,029 retailers in the United States in 1910.[1] The number of wholesalers of foods was not designated separately, but the enumeration of retailers indicated that there were 124,048 meat retailers and 195,432 grocers. On the basis of these facts there were 24 retailers to one wholesaler in general, and 290 consumers or 58 families on an average for each food retailer. The volume of business handled by the common retail food store is therefore directly limited by the small number of customers. Because of conditions which have resulted in retail stores being small as a general rule, it is the usual thing to find men engaged in this line of business who are handicapped by inadequate capital and by insufficient native capacity, training and experience. As a result retail stores as a group do not increase at all rapidly in their size and sphere of service. In considering their characteristics, therefore, these facts concerning the customary size of retail concerns are important.

Why the Food Retailer does not Purchase by Car Load. — The retailer of average size selling less than $50,000 worth

[1] United States Census, 1910, Vol. IV, pp 420–22.

of foods annually to less than sixty families is not under present conditions able to purchase his commodities in car-load quantities. In fact, very few general food retailers sell as much as a full car load of any one product during the entire year. Because they have neither the finances nor facilities to store products, and furthermore because profitable retailing requires rapid turnover or sale of foods, retailers do not want to buy and have on hand more than one fiftieth or one twelfth of what they expect to sell during the year. Consequently purchase of supplies by car load is absolutely out of the question for the usual retailer of groceries and meats.

In consequence of this basic fact, that neither consumers nor retailers are equipped to purchase foods by car load, the local wholesaler is a fundamental economic necessity under present conditions. He renders a service to retailers which individual small size prevents them from accomplishing in their own behalf. Instead of increasing the cost of marketing, the wholesaler, in spite of his margin taken to cover expenses and provide profits, is justified because he makes possible car-load shipment of products and facilitates the breaking of these car lots into quantities which retailers are able to handle in accordance with customary consumer demands and retail facilities.

What the Retailer does for the Consumer. — The common retailer of groceries and meats maintains a stock of goods which includes hundreds of varieties and qualities of food. This stock of commodities is carried for two reasons. First, the retailer desires to earn a profit from his services in catering to consumer wants. Secondly, consumers want to be able to secure a small amount of each of an enormous variety of foods at any time throughout the year. Because profits can be earned only by keeping expenses at a minimum and because companies doing the greatest amount of business are most surely able to keep their expenses low and thereby earn

profits, the retailer is obliged to handle a very great variety of goods.[1]

It would take a great many customers buying butter alone to provide a volume of business sufficient to operate a retail store handling butter exclusively. Butter generally is sold on a margin of 7 to 10 per cent.[2] Since the average store must cover operating expenses of $6500, it is likely that a butter retail concern would need to sell $65,000 worth of butter to enable it to operate on a 10 per cent margin and come out even. It would have to be much larger if stimulating profits were the aim. But this would necessitate the sale of more than 130,000 pounds of butter, which at the minimum would call for the regular patronage of 650 families of consumers. That few, if any, retailers have had confidence in the possibility of inducing consumers in sufficient number to centralize their purchases of butter with one retailer illustrates the reason why few if any retailers specialize in selling a single commodity.

The usual retail store is typically a variety distributor. From its very nature, consumption, involving as it does numerous articles in small quantities to be utilized at a great number of places, imposes the limitation that even the largest individual food retail stores must necessarily be relatively small business units and confined to a comparatively small area and to few customers. In this respect retailers are similar to the various middlemen at country shipping points who must assemble raw materials from a relatively small number of farmers for the purpose of economical freight shipment.

But whence comes the great variety of foods which the consumer enjoys upon his table? The first answer seems obvious to any one — from the retailer, of course. While most consumers see finished commodities upon the storekeeper's shelves, few, indeed, realize the intricate system by which

[1] Wis. Exp. Sta. Bul. 324.

Ibid., Bul. 324, Table I.

they were brought to the retailer from all parts of this and other countries. If the reader can imagine that all of a given farm product like wheat was being sold in the form of flour through one consolidated brokerage or selling system, it would be easy to draw the picture further and imagine lines of contact converging from several million farms in all parts of the country to one central office. It would also be possible to imagine another set of contact lines running outward from this central point to all of the basic raw materials grown on farms, and thus the illustration given for wheat might be multiplied by several hundred.

Let it be emphasized that this conception serves as one of the simplest illustrations of the problem of commodity distribution. In actual practice where conditions cannot be simplified by imagination these converging lines are not drawn between each farmer and the flour-selling agency and from this point to each consumer. On the other hand the farmers' lines converge at a local elevator. Then a series of elevator lines join at a flour mill. From the selling system which disposes of the flour of this mill the lines do not reach out theoretically straight to the consumer. Instead, a series of lines reaches out from this selling point to a number of wholesalers. Then from each wholesaler another series of lines spreads out to a number of retailers. Finally, from each retailer a series of lines runs out to his separate customer families. In one way this idea is pictured in Fig. 2 presented in Chapter I. In a different way it is again illustrated in Fig. 38. In connection with this diagram the data in Tables XXIX, XXX, and XXXI are arranged to correspond with each step or middleman shown in the diagram and numbered I to VII, commencing with farmers and ending with consumer families. Thus the retailer is the final focusing point for every conceivable food product. In reality he receives products over many times the number of lines which it was

possible to indicate in the space of a small illustration like Fig. 38.

Virtually all production is undertaken to provide goods and services which will satisfy consumers. So far as the farmer is concerned, almost all of his commodities reach consumers through the services of the retailer. Thus all communication and transport lines, with respect to food and other

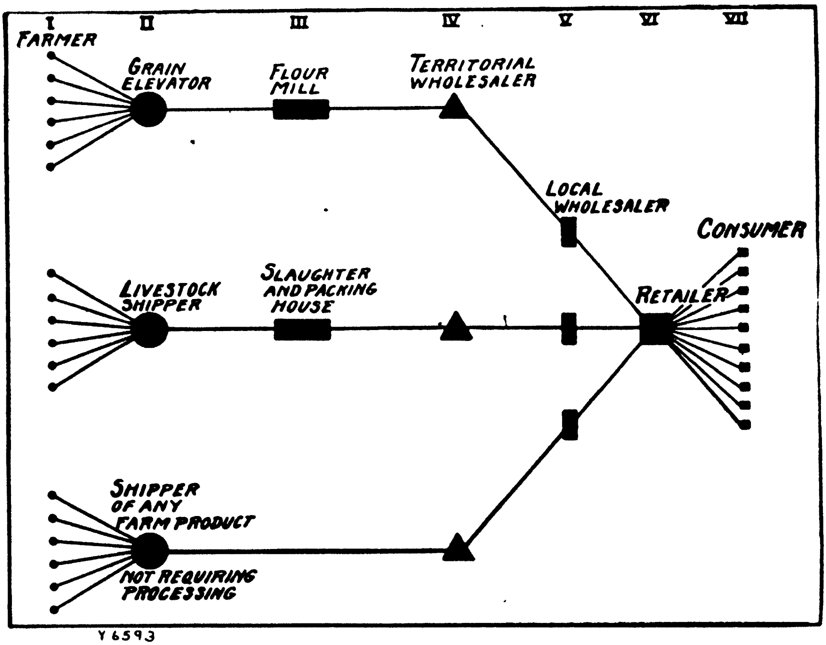

FIG. 38.—HOW CONSUMERS GET VARIETY OF PRODUCTS FROM FARMS

In buying numerous products in small quantities from retailers, consumers do not appreciate that each comes from farms either in many states in this country or even in other lands. To be gotten from farms to retailers requires a series of middlemen specializing in the performance of essential services for each product. Thus one series of middlemen moves wheat from farms and places flour with retailers, another obtains hogs from farms and places fresh and cured pork products with retailers, and another moves oranges from farms to retailers. There are not only these three lines of contact from farms to retailers but others for each basic raw material produced on farms. The number is very large, so that this chart is merely a small sample. (See text, pages 217–220.)

farm products, ultimately converge at the retailer, where the consumer has quantity, variety, and quality available for inspection and purchase. Up to the point where the retailer has obtained supplies in keeping with the demands of his

customers, the service of economic commodity distribution in the broad sense has been performed. Further local distributing between the retailer and residences of his customers, while exceedingly important, is purely an individual and local affair, just as is the question of whether the farmer or some hired milk hauler shall take the milk from farms to local creameries or milk distributors.

The much discussed problem of economic distribution, as to whether the present marketing system is based upon superficial or fundamental foundations from the country-wide standpoint, commences with the acceptance of products by middlemen at local shipping points and ends with the receipt of commodities by retailers. It is between these two groups that the mechanism operates which must cut the pattern of production, or control and change the form of supply to fit the pattern of consumption. The middlemen who perform these services, chiefly storing and market feeding, conduct operations on a relatively much larger scale than either local assemblers or retailers. They also are comparatively few in number and hence so located that neither farmers nor consumers come into contact with them. Under these conditions it is no wonder that the marketing system is so shrouded in mystery. It is necessary, however, to emphasize that, no matter how well or how poorly this country-wide distributing system is operating, possibility and need for improvement therein are probably no greater than the possibility and need for improvement, both among middlemen at country points and among retailers. (For discussion of weaknesses of the present marketing system and certain suggested remedies, see Chapters XVII and XVIII.)

Diversity of Retail Services Demanded by Consumers. — With the increasing commercialization of production, industrial consumers living in densely populated cities and confronted with the problems caused by increasing distances

between residential sections and their places of work have found it necessary to rely more and more upon further development of the idea of division of labor. For example, as an industrial city expands the distances between a portion of the residences and workshops increase so that a smaller proportion of the people are able to do their buying in person. For others increased income presents an opportunity for enjoyment only when more leisure is gained. To gain increased leisure, buying is done by telephone instead of in person, the cost being met by disbursing a part or all of the increased income for retail services hitherto not enjoyed. On the other hand, there is always a certain portion of the population who either from necessity or choice prefer to pay cash and carry home at least a part of what is bought. With a population whose diversity in interests, leisure, buying power, and force of circumstances is as great as that in any American city it is impossible to standardize all retail services and methods. Undoubtedly so long as consumers have different needs, live and work under varying conditions, and are favored with decidedly different incomes, retailers, in one way or another, will be expected to render services in keeping with the requirements and purchasing power of their customers.

Development of Retailers Charging for Service Rendered. — Overlooking the fact that retail dealers are patronized by people of all kinds and that they are therefore under pressure to render a great variety of special services, the individual consumer is rarely able to comprehend why the system is not designed to fit his requirements more exactly. Thus the customer of leisure and moderate means may desire to pay cash and carry the goods home. Why should he be charged the same price as one who charges the amount until the end of the month and has the goods delivered? Or why are not prices adjusted to correspond closely with the number and variety of extra services rendered in addition to those en-

joyed by the cash-and-carry customer? The answer given by thoughtful middlemen in the retail business is simply that expediency does not warrant such a fine gradation of services and charges within a single organization. The results of experience show that it is less expensive to standardize charges to an expedient or average flat rate that will cover all expenses and give a profit than to classify services and charges and maintain a bookkeeping system intricate enough and clerks well enough posted to make the classified plan work.

In keeping with this generally accepted retail principle storekeepers are automatically developing establishments which specialize more or less in handling selected lines of foods and in rendering only a fixed number of definite services. The regular or common retail store offers to all customers for a single flat price a choice of any kind of groceries or of meats in connection with which it will render one or all of the additional services of charging the account, of delivering the goods bought, and of calling for and taking back unsatisfactory purchases. Obviously the flat price, irrespective of service performed, places the premium on having the storekeeper do all the work and against the consumer doing anything beyond placing an order. The usual flat price store works a great injustice to those whose forced circumstances require saving to the utmost by purchasing foods in person and carrying them home. Similarly, the flat price discriminates against those who wish to pay cash at the time of purchase. It compels these and other kinds of consumers to pay at least in part for that which they do not receive, namely, local delivery and credit. On the other hand, it may readily cause retailers to render expensive services at less than their cost to those who want them and are capable of paying their full cost.

Developing out of this condition and as a means of catering more completely to the needs of all those who constantly or occasionally pay cash and carry their purchases, enterpris-

ing business men have developed "cash-and-carry" stores. Others have established fancy grocery stores. Still others have succeeded with a plan of selling relatively low-grade products at bed-rock prices, hoping to earn a profit on volume sales rather than width of margin. This movement has its origin in the fact that consumers have different wants, live under varying circumstances and at different times desire to receive and pay for fewer or for more services. That expediency in retailing was a hindrance to the development of classified services and charges within the same store was the underlying cause for the recent growth of retail units specializing in the "cash-and-carry" business, the "grocerteria" plan or any other program whereby the consumer could receive and pay for those services only which are desired.

Whatever conditions at a given time or the sentiments of a consumer may lead him to believe about retailing, this much is certain, that economic distributing requires retail services of different kinds. Real service is rendered to consumers when they are able at any time to select any desired commodity, pay cash, or have the amount charged, and carry it away or have it delivered. When the retailer renders these services and charges different prices in accordance with the costs of services utilized by each consumer, he meets the essential needs of the greatest number. It is to meet these needs of consumers that retailers are in business. Their justification is found in the extent to which these services are rendered efficiently. In any case retailing is a necessary part of the system of distributing farm products.

Costs of the Service of Distributing Products. — Very few if any strictly accurate figures have been arranged to indicate the cost of the distributing service alone. Those statistics which are available invariably include the cost of some one or more other services, such as grading, packaging, transporting, or storing. It is therefore impossible to do more

than suggest in general terms the approximate amount of the margin taken to cover wholesale and retail distributing services only. Such an attempt has been made with the facts presented in Table XXXII. It will be seen that the cost of distributing ranges from scarcely more than 14 per cent to 43 per cent of the value of products to consumers, depending upon the perishability, the bulkiness and intrinsic value of the article, and the distance to market. For flour and meats which comprise such an important proportion of the family food bill, costs of the service vary from 15 to 23 per cent.

TABLE XXXII. — COMPARATIVE COSTS OF SERVICE OF DISTRIBUTING

	ORANGES [1]	SPECIALTIES [2]	MEATS	FLOUR [4]	BUTTER
Transporting . . .	20.5	— [7]	3.28 [3]	— [7]	1.7 [6]
Distributing, wholesale .	9.7	12.5	3.23 [3]	10.0 [5]	4.4 [6]
Distributing, retail . .	33.3	25 0	20.00 [4]	10.0 [4]	10.0 [4]
Total	63.5	37 5	26.51	20 0	16.1
Distributing service cost only	43.0	35.0	23 23	15.0	14.4

Regardless of the product studied or the source of information, the costs of retail distributing are much greater than those of wholesaling. Furthermore, retailing as a rule is conducted by vastly less efficient agencies than is wholesaling. Unjustifiable methods, extreme losses and other wastes exist in retailing which have long since been largely eliminated from the wholesale system. Both of these groups of distributors have plenty of room for further improvement, but a serious mistake can readily be made by overemphasizing

[1] *The Western Fruit Jobber*, Vol. I. No. 12, April, 1915.

[2] Special correspondence concerning canned, bottled and packaged goods as desserts, breakfast foods, etc.

[3] Calculated from data submitted to U. S Senate Committee on Agriculture and Forestry, Sixty-sixth Congress, Stimulating Livestock Products, S2199 and S2202, Part I. p. 502.

[4] *Wisconsin Sta. Bul. 324*, Table I.

[5] U S. Dept. Labor *Bureau of Statistics, Bul.. whole No. 130*, p. 42 ff.

[6] *Ibid.. Bul., whole No. 163*, pp. 56–57.

[7] Included in Distributing, wholesale, below.

the shortcomings of the wholesaler and overlooking the faults of the retailer when the latter is most at fault.

SUMMARY

1. Consumers do not generally buy direct from farmers because the latter are producers of a few commodities only while wants are for a great variety of goods. For consumers individually to secure all of the articles needed direct from farms would require dealings with hundreds of farmers in all parts of the world. This is utterly impossible.

2. Retailers specialize in assembling at one place a large variety of finished products so that consumers may readily obtain what they desire. Thus each retailer does for fifty or more families of consumers what each family wou'd otherwise be obliged to do for itself. Retailing is therefore a form of division of labor which increases the general purchasing power of the consumer's dollar instead ot reducing it as so many are inclined to believe.

3. Retailing is necessarily confined to relatively small business units because ot the limited number of persons who find it convenient to trade at a given point. Owing to the limited volume of sales and the immense variety handled, purchase by car-load quantities is out of the question for any but the largest retail merchants.

4. To provide retailers with supplies which have been brought to the local point in car-load quantities so far as possible, wholesalers are necessary. Frequently less than car-lot wholesalers are needed to subdivide the large volume of business conducted by car-lot wholesalers.

5. The total cost of distributing farm products varies greatly for different commodities. It rarely falls below one seventh of the consumer's dollar and may run as high as one half. The service of distributing, it should be recalled, is a part of the process of economic production, since it creates values, but it does not include all of the costs of marketing.

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CHAPTER XII

ESSENTIALS OF SUCCESS IN THE BUSINESS OF MARKETING

CONTRARY to the attitude of many people, no middleman has a vested interest in any field of marketing farm products. Middlemen, whether private, coöperative or governmental, are privileged to operate and are justified in so doing only to the extent to which they render essential marketing services efficiently. Under a wide-open competitive system it is unavoidable that middlemen should range in their relative operating merits all the way from utterly inefficient to exceedingly efficient concerns. Great differences in operating efficiency between the poorest and best middlemen result in wide margins. Out of these wide margins the most efficient concerns take less for expenses per unit of product handled than do less efficient middlemen, and hence their profits are larger. Thus, of two competing marketing enterprises, both doing the same kind of business and selling at the same level of prices, one may keep its expenses low and earn high profits, while the other on account of excessive costs may lose money.

From a superficial point of view the public appears disinterested in the middleman who makes small profits or loses money. Almost invariably public criticism is directed at middlemen who through efficiency and persistence have reduced costs and kept them low, thereby earning legitimate profits while competitors selling at the same prices have lost money wholly because of their inefficiency. In common instances of this sort the competitive marketing enterprise making good profits has not robbed any one. It has rendered its services efficiently and could have accepted lower prices

had competitors been efficient enough to operate with smaller expense and hence offer goods for less money. The evil in this competitive situation has been in the fact that the public has expected too much of unrestricted competition as a means of regulating prices. It has failed to realize that endless numbers of people trying to make a living from marketing inevitably reduce the quantity of business for each concern or increase the differences in cost and hence profits of competing companies by causing some to be absurdly small while others grow increasingly large and efficient.

As long as there are both inefficient and efficient business enterprises operating within the same competitive field the public cannot reasonably expect to secure middleman services at prices representing lower gross margins. The least efficient middleman who remains in business, having the highest costs and hence requiring the highest gross margin to keep from bankruptcy, makes no profit. But the size of margin [1] which this class of concerns is able to get gives the efficient middleman the high profits which he receives though his goods were sold at prices not any higher than those secured by his less efficient competitors. Improvements sought through reduced margins cannot be attained where competition rules, except where competition is vigorous enough to destroy all but the more efficient concerns and where, if competition is thereafter maintained, the competitive survivors can profitably sell at a price lower than that prevailing before the inefficient competitors were eliminated.

Both the middleman and the consumer can take a long step forward by informing themselves correctly upon the basic principles of business, the former to increase his efficiency, the latter to make his suggestions constructive and in a manner that would be effective. While a complete

[1] Margin means the difference between buying and selling prices for middlemen and the difference between farmer and consumer prices for the public.

study of business principles would require volumes for presentation and is not the object of this book, emphasis should be placed upon five points of paramount importance for all marketing enterprises. Scarcely a middleman of any kind is able to persist year after year in business who does not face each of these five issues. Highly successful concerns attribute their welfare to careful solution of these problems which may make or destroy operating efficiency. The points upon which operating efficiency depends are:

1. Efficient management.
2. Adequate financing.
3. Volume of business.
4. Method of marketing or plan of distributing.
5. Quality of products.

Efficient Management. — The successful marketing company depends for its efficiency probably more upon the character of management than any other one factor. Many undertakings have failed because of weakness in management when all other important conditions were favorable. Stated in the simplest form, management means brains and their proper application to all of the problems which confront business. Brains are secured for marketing enterprises by employing capable managers, while the degree to which a manager's ability, judgment and experience may be utilized depends upon the character of information he is permitted to gather about the operation of the business itself and about the outlets for its products. Information about the operation of an undertaking is compiled and made useful by a suitable accounting system accurately, adequately, and constantly maintained. Similarly, facts concerning the outlets for products are gathered and made helpful to the manager through the selling system. Efficient management of a marketing enterprise is assured when a capable manager and

his responsible assistants are equipped with facts of this kind which enable them to do their work well.

Why Efficient Managers Receive High Salaries. — Unfortunately the public has generally misunderstood the nature of management and has underestimated its great importance as the force which drives a business to success or failure. Marketing farm products requires action and decision on the part of the manager. Delay means the piling up of expenses because products, labor, storage, and car facilities and investment in general represent money tied up. Rapid selling of products, in other words, higher speed of turnover, enables the middleman to make more as well as serve a larger number of people. To have this quality of keeping the entire business organization working at full capacity and always doing just the right thing necessitates four essential characteristics in a manager. These are: (1) administrative ability and decision; (2) initiative and originality in his line of work; (3) power of analyzing facts and problems accompanied by sound judgment; and (4) ability to meet and deal with people, both employers and customers. Such qualities as these are not possessed by one man out of a hundred or even a thousand. They are rare characteristics which cannot be acquired except by education and experience and both of these are expensive. Because education and experience cost more in time and money than the usual man is able or willing to spare, men qualified to be efficient managers are very scarce. For this reason the demand for good managers is great. To secure their services marketing companies that appreciate the necessity for proper management offer attractive salaries.

Capable Manager though Highly Paid is Least Expensive. — It is common among large numbers of any kind of middleman to find examples of business failures where incapable management has been the cause. A typical instance is that of a common-sized grain elevator handling 125,000 bushels

of wheat and 25,000 bushels of other grains. Where failures accompanied by losses of $3000 or more have occurred managers so poor as to be willing to work for only $750 have been employed. The cost of hiring this cheap manager amounted to only one half cent per bushel for the 150,000 bushels handled. The far greater costs of bad management in the form of a $3000 loss amounted to an additional two cents per bushel. Thus an incapable manager is far more expensive than his salary alone would indicate. The total real costs of a manager are his salary, the losses which he incurs, and the gains which he fails to get on account of his inefficiency. In the instance above the company which employed a manager for $750 a year, thinking that it was doing business inexpensively, in reality paid two and one half cents per bushel for his services instead of one half cent per bushel.

In contrast with the high expense met by hiring poor managers, consider the costs and results of employing really efficient brains. Local elevator companies known to be making great progress and earning substantial profits of $3000 and upward, though handling only 150,000 bushels of grain, have employed capable and experienced managers who could not be secured for less than $3000 annually. At this rate the manager's salary amounted to two cents per bushel or four times as much as was paid by the other elevator mentioned above. Unlike the elevator with the poor manager and confronted with a loss of two cents per bushel, the one served by an expert manager received a profit of two cents per bushel. Thus the company paying all the costs for a manager in the form of a high salary, which amounted to two cents per bushel, actually was out less for a manager than the elevator which tried to save by employing an inefficient man because they could get him cheaply. Besides a profit was earned above the manager's high salary.

Considered from the point of view of wise investment the

elevator company putting two cents per bushel into employing an expert manager, instead of paying one half of a cent per bushel and getting no management, simply invested an extra one and one half cents per bushel for a manager and by so doing earned four cents more than did the elevator with the incapable manager. Actually to make an additional four cents per bushel by the investment of only an extra one and one half cents per bushel is earning money at the rate of $2.66 for each $1 invested. It means the making of net profit of 166 per cent on the additional investment of one and one half cents per bushel. Surely evidence of this kind which comes from the cold-blooded experience of actual business speaks for the necessity of employing real and capable managers. There is no surer way of guaranteeing success in marketing than by employing the best manager the size of business justifies and by paying what it takes to engage his best efforts. Naturally, there is a large enough number of marketing enterprises appreciative of good management to cause intense competition for experienced men of this sort. It should be remembered, however, that such a manager can be secured if he is offered a salary somewhat higher than what he could get elsewhere under similar circumstances. Brains now command a premium on the market and doubtless always will do so. Recognition of this fact is the first fundamental to success in marketing enterprises.

If the manager be considered as the motive force, the "locomotive" of a business enterprise, certainly a properly conducted accounting department and a thoroughly informed selling department are the rails upon which his judgment and decision must move. An accounting system should be comprehensive and so far as possible of such character that results may be comparable with those provided by accounting systems in other similar marketing undertakings. Much constructive improvement is the result of the comparative

study of various marketing methods and devices. Without accurate information compiled by numerous concerns according to the same general plan, comparisons are obviously impossible. Standard accounting systems therefore present the possibility of providing data which may lead to discovery of more economical marketing methods. To successfully discover and eliminate the errors which creep into most statistical work, and especially to give every assurance and protection to those whose interests are influenced by or center in a marketing company, regular periodic audits should be made of its bookkeeping system and business results. Such audits should be made at least annually and may be desirable oftener.

Adequate Financing. — In an earlier chapter (Chapter IX) the fundamental importance of the financing service was discussed at considerable length. All that was said there applies with equal force here. In this connection further emphasis is placed on the point of having the right amount of capital for economical operation at a given time, combined with soundness and independence in this financing. It cannot be too vigorously recommended that too little capital penalizes a marketing enterprise either by directly limiting its capacity or volume of business or by causing it to operate at otherwise unnecessarily high expense. Thus for example, some pea-canning factories because of small capital owned by them are obliged to expend 3.19 cents per dozen cans produced to meet interest on short-time borrowings, while other canners pay to outside sources for this service only one twentieth of one cent per dozen cans.[1] On the other hand, to have such a large paid-up capital that it must stand idle during large portions of the year constitutes an expense which is unnecessary. To avoid this loss of earning power of capital required to finance the undertaking during the season of

[1] University of Wisconsin, Agric. Exp. Sta. Bul. 327, Table VII.

heavy business, many comprehensive marketing enterprises either purchase short-term commercial securities of other lines of business or invest directly in them, thereby being able to make the idle capital of one business serve the unusual seasonal needs of the other.

A common cause of failure among marketing companies has been insufficient working or supply capital. Inability to pay for raw material or to meet financial needs beyond reasonable amounts of money locked up in finished products has wrecked many an enterprise by obliging it to sell its output at prices depressed to unjustifiably low levels from which they recovered later. Noted examples of this sort of failure are two farmers' coöperative packing plants, one located at La Crosse and the other at Madison, Wisconsin. The occasion for mentioning them is that, contrary to accepted packing company experience, which requires two thirds to four fifths of the capital to be free for current use in purchasing raw materials and holding them through the curing and packing processes, these companies had much less than one half reserved for these purposes.[1] Successful operation of marketing enterprises is impossible where the usual and established finance requirements are willfully or otherwise overlooked and therefore not complied with. It behooves the middleman who aspires to success, whether private or coöperative, to see that he has adequate finances for both equipment and supply purposes. Next to efficient management, sound and certain financing is probably the most essential of marketing business principles.

Importance of Volume of Business. — Volume of business is a less vital matter than the character of management and the adequacy of financing only because these two virtually control the former. Poor management will become known

[1] La Crosse Farmers' Coöperative Packing Company, Balance sheet of Dec. 31, 1914; Wisconsin Division of Markets, *Market News Letter*, Vol. I, No. 27, p. 3.

and this causes the flow of products to other enterprises. Insufficient capital directly limits the volume of business because it checks the quantity of commodities which may be purchased. Aside from these elements of control or definite reaction upon the volume of business, the size of the enterprise is as important as either management or financing.

All marketing enterprises engage in the business of handling products to provide services that meet requirements of distance, time, variety, quality, or quantity. In accomplishing each of these purposes, as discussed in the preceding chapters, there is a relation between the quantity of business done and the cost of operation per unit of product handled. For example, the cost of manufacturing butter in a creamery making a large quantity, was much less per pound than in a small creamery. The costs of handling grain were less in an elevator receiving and shipping a large quantity than in one which did a small business. Similarly, in almost all marketing enterprises increasing volume is important in reducing operating costs up to the point where the full operating capacity of the management, equipment and labor is being overreached.

A very common cause for the failure of marketing companies has been the fact that too small a volume of business was handled to keep the fixed or overhead expense and the variable costs low enough to permit the paying of attractive prices to producers of raw material. A striking illustration of the wholesale failure of private middlemen due to shrinking patronage is that of Iowa's creamery experience. Because local coöperative creameries gave substantially higher prices for butterfat than private local creameries, 147 private plants ceased operation between 1900 and 1915.[1] An equally forceful illustration of the starvation and hence failure of local coöpera-

[1] University of Wisconsin, thesis by the author, A History of the Organization of Creameries and Cheese Factories in the United States, Chapter 5, Table 5.

tive creameries is the Kansas experience with this kind of middlemen. During fifteen years from 1885 to 1900 no less than 500 creameries were established and then went out of business because of inadequate volume of butterfat for economical operation.[1]

Unfortunately, neither farmers nor consumers appear to appreciate the fact that products are handled generally at less expense by middlemen doing the larger volumes of business. Naturally in selling at substantially the same prices as those received by small competitors, the former make good profits even when the latter lose money. This means in no uncertain terms that marketing generally could be less expensively done were these inefficient middlemen eliminated and were all products thereafter marketed competitively by a few middlemen each of whom had reached somewhere near the same degree of operating efficiency. In other words, the fewer middlemen there are the larger volume each will be assured and the less will be required out of each consumer dollar to pay for the essential marketing services, provided that these middlemen are efficient and that they operate in competition with each other instead of combining for monopoly power. That this object can be attained only by consolidation of many existing private and coöperative middlemen is a certainty. Legal limitations, however, prevent extensive private consolidation because of a fear of the accusation of monopoly, while adequate coöperative consolidation through federations, and otherwise, develops slowly on account of suspicion, jealousy, and uncertain leadership. Important changes in the efficiency with which products are marketed are not likely to develop until consolidation or elimination has taken place among middlemen that will give those remaining in the respective fields maximum volumes of business both for local operating units and for comprehensive

[1] Kansas Exp. Sta. Bul. 216, pp. 5–11.

nation-wide brokerage or selling units. This means that the service of assembling has not been developed in the past as much as it should be. Improvement and hence the interest of the public should be directed to the problem of eliminating the obstructions, legal and otherwise, causing the existence of numerous inefficient and therefore wholly unnecessary and undesirable middlemen. It should be emphasized that the public cannot tolerate monopoly and its pernicious results. When large-scale distributing organizations acquire monopoly power, they must be dealt with accordingly. For discussion of these problems the reader is referred to Chapters XVII, XVIII, and XIX.

Method of Marketing or Plan of Distributing. — Because farmers in the United States produce commodities like hogs and cattle, most of which are consumed in the East and some of which are marketed in every State; like wheat, which goes in the form of flour to all parts of the country; and like oranges and many fruits, which are sold everywhere, an indispensable feature of truly economical marketing is the systematic plan by which these products are moved from farms, delivered to consumers and payment for them returned to farmers. Doubtless for the bulk of farm products there is no one definite plan for their most economical distribution. Instead, competitive middlemen ranging from the smallest to the largest, with widely varying degrees of operating efficiency and with even greater extremes in their market knowledge and selling connections, play their hands as best they can. A primary cause of certain serious conditions in marketing which merit vigorous criticism and justly have earned popular condemnation is that products move from place to place and from middleman to middleman without definite assurance that each move is the wisest and least expensive one that could have been made.

Marketing improvement in general as well as the efficient

marketing systems which have been developed owe their merits very largely to the distributing plan which is followed or of which formerly disconnected units have chosen to become an integral functioning part. Lack of a comprehensive distributing plan leaves the small middleman in a position where his usefulness is highly questionable. His costs much of the time are equal to the entire margin or difference between the price he pays for goods and the price received for them when sold. For this reason small concerns of this kind cannot be instrumental in reducing the width of this margin. Satisfactory distribution is realized because some definite dependable plan is followed under the direction of a capable manager worth all of the high salary which he is paid. Oranges are marketed scientifically and with little to cause dissatisfaction among farmers because the middlemen, the local packing plants, the district exchanges, and the California Fruit Growers' Exchange are working according to a well-defined and highly economical plan and have insight to pay well and get first-class managers. On the other hand, wool marketing has always been unsatisfactory because of the hit-and-miss character of its movement from farms to mills. (For further discussion of this subject, see Chapters XVII and XVIII.)

Quality of Products. — Consumers universally place the premium upon quality because of their inherent psychology in buying and also because experience has led them to feel that more is secured for their money when high-grade products are bought. Porterhouse steak the country over sells for more than round steak or flank cuts; beautiful boxed apples from the West move at a higher price than the local or home-grown products; fancy bacon or ham sells at much higher than medium grades; in fact, almost all top-grade goods have an assured market at prices which not only cover their normal cost of production but generally pay a very handsome profit

besides. Marketing undertakings which are determined to prosper find that placing the premium upon quality guarantees increasing demand for their products at profitable prices and in ever-increasing quantities.

To such noted and successful marketing systems as the coöperative middlemen in California marketing oranges and lemons, prunes and apricots, raisins, peaches, walnuts, almonds, and many other products, and the outstanding private middlemen represented by various wholesalers of food products, by milk-condensing companies, and others, quality of products has been an important factor of business growth. Their remarkable development has been very largely due to their consistent policy of giving consumers what they wanted, namely, quality products, and of instructing them by suggestion through advertising as to what these quality products were and where to get them.

Disregard of Quality a Source of Losses. — The fact, well known to the trade, that high quality products move on dull or falling markets while low-grade goods pile up is impressive of basic tendencies which marketing enterprises cannot take too seriously. In practice those middlemen who neglect to purchase and sell according to the quality of the goods inevitably expose their business to serious and often to irretrievable losses. A striking illustration is retailers' buying of farm butter.[1] In a study of purchases of farm butter by 178 retailers amounting to 460,000 pounds, the average buying price was 27.1 cents per pound. Because these retailers paid the same prices for all butter regardless of quality, a great deal was accepted which was unfit for human food until renovating or reworking first had been accomplished. Because 32.5 per cent of the butter was unfit for any but the renovating companies, it brought only 20 cents per pound, while that taken by consumers, amounting to 67.5 per cent

[1] Kansas Exp. Sta. Bul. 216, pp. 21–25.

of the total, brought 28 cents per pound. The loss on poor butter resulted in an average selling price of 24.4 cents for butter which cost the retailers 27.1 cents. Thus these stores, because of placing the premium upon low-grade butter instead of quality, were obliged to stand a loss of 2.7 cents per pound. This loss of 2.7 cents was directly the result of an evil of glaring porportions not only in the produce trade but in the marketing of altogether too large a proportion of the country's farm products. Unsound business practice of this kind has ruined many a middleman, not to speak of its unfairness to the producers of high-grade products. To receive only an average price for superior products penalizes the farmer or any other producer who endeavors to improve quality. That middlemen have done this in a wholesale way either from inertia, ignorance, or willfulness is in no small measure a cause for the present animosity of farmers toward middlemen. On the other hand, marketing companies, whether private or coöperative, which follow a buying and selling policy based on quality have every reason to feel confident of securing good will from producers and expanding markets from pleased and enthusiastic consumers.

SUMMARY

1. Successful operation of a business devoted to marketing farm products depends upon a combination of (1) personal qualities, (2) quantity of capital, (3) quantity of products, (4) definite plans as to what work shall be done and how, and (5) quality of products.

2. Management, referring largely to personal capabilities of men engaged in business, determines success more than any other one factor. Capable management confronted with inadequate capital, insufficient business, without a plan of procedure or marketing method, and with inferior products will solve all of these problems and build up a large-scale successful marketing enterprise. Incapable management starting with otherwise ideal conditions so far as finances, volume, method and quality are concerned will dissipate a real opportunity.

3. To be assured rapid progress, capable management should be associated with the other conditions which make for business success. To prevent need-

less losses, bitter experiences and public misfortune, incapable management should be kept out of marketing, even though other requirements of successful operation are evidenced.

4. Capable managers are not found everywhere. It costs both money and time to produce managers of ability out of human raw materials. Besides not one person out of a thousand has the native ability that in response to education, training and experience will make a young man into a valuable manager for marketing enterprises. For this reason desirable managers are scarce and high salaries are offered to get them by those who wish to guarantee success for their marketing companies. Well-paid managers worth high salaries are the cheapest kind in the long run.

5. Great numbers of enterprises fail because of inadequate financing. This is the case because they are unable either to afford necessary buildings, land, or equipment, or to purchase the volume of products required to make a company successful. Adequate financing is essential to efficiency in marketing.

6. Because costs of operation differ according to the quality of products handled, it is desirable to assemble as nearly as possible that quantity which results in minimum cost and maximum saving or profit per business concern Either too little or too much business defeats in a measure the objects of operating a marketing enterprise.

7. To render all middleman services as cheaply as possible and at the same time to make the highest possible profit consistent with low prices to consumers and high prices to farmers, requires that superior marketing methods be used to the exclusion of inferior methods. The integrated method, whereby local middlemen are federated into suitable, efficient, country-wide selling or distributing systems, represents the most efficient plan of marketing.

8. Consumers always want products of high quality. In fact these are the commodities of greatest scarcity. Production and handling of them, therefore, gives the greatest certainty of profit both in farming and in marketing. The enterprise which seeks to guarantee success must place the premium on high quality. For those who do this markets are most certain to be open and active and prices remunerative.

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CHAPTER XIII

FUNDAMENTALS OF COÖPERATIVE MARKETING [1]

THE remarkable development in the United States of the corporation to conduct marketing and other businesses is ample proof of the high regard in which this form of organization is held by private agencies as an efficient and profitable agency for doing the work of marketing. In sharp contrast with certain objects of the corporation as a means of doing the country's marketing is the coöperative form of large scale business enterprise. The slower growth of the coöperative form of organization has been due to numerous difficult problems, to inadequate information and to popular misunderstanding. Because farmers are increasingly inclined toward the idea of marketing through their own coöperative agencies, it is highly important that the service and benefits of coöperative achievement and the responsibilities of coöperation and the obstacles to it should be generally appreciated. Moreover, the real possibilities of what to expect from coöperation should be known so that highly exaggerated notions concerning the possibilities of profits and savings from coöperation may be less readily used by demogagues and politicians to lead the farmers into pitfalls.

Benefits of Successful Coöperation. — Coöperation at various times has been regarded by enthusiasts as all but a panacea for the ills of the farmer. As a cure-all, however, coöperators find their favorite method of organization subject to the various whims and weaknesses of human nature which beset other business organizations. As in most other methods

[1] Adapted in part from *Kansas Agric. Exp. Sta., Bul. 224*, by the author.

of creating improved conditions, the farmer meets with the necessity of distinguishing between the results of coöperative principles properly applied and those improperly applied. In numerous surveys of farmers' coöperative organizations there is concrete evidence of decided financial benefits accruing from successful coöperative endeavor. It would be impossible to evaluate the other benefits arising from coöperative relations. They pertain to either direct or indirect influences which tend to improve the kind, quality, and quantity of products turned out by the farmer and to increase his personal interest in the community in which he resides. Briefly stated, there are at least five kinds of benefits which flow from coöperation when successfully developed.

First, by investing capital in coöperative undertakings headed by competent managers, farmers are able to make savings which otherwise go as profits to the investors of capital, and the organizers of private corporations and businesses.

Second, by creating in a community the conditions which promote or insure a supply of high-grade products both uniform in quality and adequate in quantity, a community reputation is frequently built up which induces buyers to come directly to the farmers, who, according to the usual method at present, are obliged to go to the buyer. In this way coöperation saves for farmers considerable sums of money which otherwise figure as part of the cost of marketing. The saving thus retained for the farmers amounts to a higher price for farm products, whether it be pro-rated back to the patrons or distributed to them in other acceptable ways.

Third, by determining the aggregate needs of the farmers and bringing their individual orders together, coöperation increases the size of a given business so that the various articles and products desired are bought to better advantage. Thus coöperating farmers are able to save on many farming

and household necessities, such as machinery, twine, feed, lumber, coal, clothing, and flour and other food supplies.

Fourth, by uniting farmers into interested working groups who depend on their manager for market information and advice as to what to produce in order to comply with market needs and as to when to bring given products to their manager for disposal, farm products are produced, graded, packed, distributed and sold in such ways as to command the best prices and thereby yield to farmers greater returns.

Fifth, by the contact of farmer with farmer in carrying out joint marketing and other enterprises, conditions are brought about wherein other community problems are sooner or later discovered and given their share of community discussion. As a result, a progressive attitude among farmers is incited which leads to improvements, not only in the organization and performance of the work on individual farms, but in the educational, social, and religious phases of rural community life.

The organization and successful operation of a farmer's coöperative undertaking frequently reduces the quantity of farm products and farm supplies available for private business concerns. For this reason corporations and business concerns operated purely for private profit quite commonly assume antagonistic attitudes toward coöperative organizations. Often hostile activities of jealous private competitors are so designed that either by unfairly raising purchasing prices and lowering selling prices or by changing the form or organization itself to that of a corporation, they are able to neutralize the efforts of, or destroy their coöperative opponents. Those principles or safeguarding features of organization which the experiences of coöperative organizations have tested and proved essential as a guarantee of the permanency of coöperation are of great interest and importance.

It should be emphasized that the only way in which coöper-

ation is made truly successful is to create and maintain a group of coöperators who fully realize the aims, possibilities, obstacles, and responsibilities, individually and collectively, which pertain to their undertaking. Consequently, in attempting to start a new organization or in trying to make one already established more successful, experience indicates that each and all of the prospective or actual members should acquire a clear understanding of the points which are called principles of coöperation. Especially is it desirable to realize that successful coöperation is a growth which must start with simple ventures first and gradually expand to include more complex enterprises. Growth is slow because coöperation rests largely upon the moral character rather than on mere physical conditions. Character building is slow and coöperation cannot grow faster than the character of its members permits.

While there are almost countless points which might be raised concerning coöperative principles, those which are of the greatest immediate practical value may be classified under the following six main points: (1) Essential prerequisites; (2) character of business; (3) character of coöperators; (4) organization; (5) management; (6) federation.

Essential Prerequisites to Successful Coöperation. — The essential prerequisites of successful coöperation are: (1) sufficient business; (2) confidence in coöperation; and (3) leadership.

Sufficient business essential to success. — Ordinarily farmers enter into a coöperative organization to do something which in the absence of this coöperative endeavor would either not be done so well or would not be done at all. In a great majority of cases the success which coöperation brings is based upon the fact that the services, knowledge, purchases, or sales of a group of people larger than hitherto are bulked together into a larger undertaking. In any case, coöpera-

tion guarantees that the savings or services go to the patrons of the business instead of to the contributors of capital. It can be readily understood that some undertakings might be too small to enable the making of any savings and consequently there would be nothing to justify farmers in an attempt to coöperate. On the other hand, many coöperative businesses are so large and efficient that high rates of saving or profit are made.

To prospective coöperators it is of supreme importance to know how large a volume of business can be commanded at the start and how great it is likely to become in the course of the first critical years. When coöperative organizations are started with too small a supply of raw material or too limited a possibility for business expansion, almost invariably the costs of operation are greater than the margins taken by private concerns. In these cases the very farmers who have established the coöperative concern soon find that the immediate financial advantages from private concerns are greater than those gained through coöperation. As a result such farmers lose interest in their organization and it fails.

To insure adequate volume of business the execution of contracts between farmers and their local association has become the approved plan not only among the successful California coöperative concerns but also with many recently organized companies in the central States. The Michigan and Minnesota Potato Growers' Exchanges and others have adopted this plan as a helpful move in stabilizing their operations and in eliminating or reducing costs which arise or become excessive as a result of being obliged to operate in readiness for a large quantity of products, indefinite proportions of which are never received.

It is impossible to say just how large a volume of business should be guaranteed before it would be safe for a group of

farmers to organize. Such a statement must be based in every case upon a study of the market conditions, price levels for raw material, building material, equipment, supplies, labor, and all of the other items which must figure as part of the cost of doing a certain business at a given place. Farmers who have successfully established coöperative undertakings insist that those who propose to coöperate should make the gathering of information of this sort their first step. The knowledge which these facts give is needed before organization is attempted.

Confidence in coöperation. — There are without doubt numerous communities in every state where there is abundant raw material and where coöperative organizations with adequate-sized business could be started. In some of these communities unsuccessful attempts at coöperative endeavor have been made, while in others no attention has even been paid to the possibilities of coöperation. Manifestly the farmers of such communities have lacked confidence in the coöperative principle. This lack of confidence may have been justified because of exceedingly fair treatment from private businessmen who, with increasing efficiency and comparatively small margins, have rendered commendable service to all parties in their communities. Again, the lack of confidence may have been due to a general lack of knowledge of the responsibilities which a coöperative organization requires of each member. Whatever the cause may be, coöperative experience emphasizes the common saying, "Where there's a will there's a way." Facts indicate that farmers cannot expect to develop a coöperative undertaking successfully if their interest is half-hearted, or if there is any appreciable lack of confidence in the program and methods at hand. To attain success, groups of coöperators have invariably found that individually and mutually the members must feel the need and value of group activity. Each and all of them find it neces-

sary not only to have "a fine internal feeling of self-helpfulness," but a further internal feeling of mutual helpfulness.

Leadership. — In almost every community where coöperation has become an important factor in the economic and social life of farmers, some person with outstanding knowledge and enthusiasm for coöperation has devoted himself unselfishly to the task of leadership. It is rare indeed to find a community in which many persons take an equal interest in problems which concern others as much as themselves. Usually farmers are especially individualistic and some unusual personality or conviction is required if they are to be brought together for group endeavor. It takes leadership to inspire a group of individuals. Leadership is essential in carrying the education of an interested group of farmers to the point where each is willing to sacrifice something of immediate importance for the greater ultimate advancement not only of his own interests but those of the others. The greater knowledge and sounder judgment of a competent leader give confidence to the prospective members, and in the various business steps which must be taken his experience and advice prove indispensable.

In some cases leadership has been self-appointed. In others the group has wisely selected the person who thereafter commanded of them the necessary enthusiasm, services, funds and support. In all cases coöperators find it exceedingly helpful to follow the leadership of a well-informed, enthusiastic person whose judgment is sound, and to avoid the smooth demagogue who knows well how to pose as a farmer and start ventures foredoomed to failure from the beginning.

Character of Successful Local Coöperative Business. — Most successful local coöperative undertakings are readily understood by their patrons, consist of local units federated into selling organizations, make sufficient savings to inspire

the loyalty of the patrons, and are decidedly nonspeculative. Each of these points merits separate discussion.

Readily understood by patrons. — Experience shows that it is unreasonable to expect each farmer to spend enough time studying the processes and methods of a complex business to gain much of an understanding of them. Yet the fact is greatly stressed by coöperators that the understanding which farmers have of their business determines the character of the policies which they are willing to approve and rigidly suport. Those who fail to understand the business throughout usually misinterpret the various business requests which come from the manager, whose responsibility it is to promote the enterprise. When a manager's requests for necessary funds, equipment, changes in methods, and for purchasing sufficient volume of products are not granted, owing to a lack of understanding by coöperators, the business is seriously handicapped. In regions where farmers maintain coöperative organizations, failure to understand business needs is a principal cause of unsuccessful coöperation. Frequently private business men affirm that they would long ago have been run out of business but for the fact that farmers were usually so poorly informed and unprogressive in the business phases of their coöperative undertakings.

Those undertakings which are the more simple and therefore easily comprehended by the farmers of a given community are likely to be successfully developed through coöperation to a much greater extent than complex businesses. As an example, a local elevator business, as compared to a great flour-milling and distributing enterprise, is wonderfully simple and easy to see through. It is noteworthy that there are large numbers of coöperative elevator concerns, but almost no large coöperative flour-milling organizations.

Local units essential. — Since the essence of coöperation is mutual help, and because mutual help among farmers has

been by far the most successful when practiced among the individuals who utilize a single shipping point, it is important for farmers to confine their first efforts to the establishment of local organizations. Later, if desirable, these local organizations may become united by coöperation among themselves. Almost invariably the first stages of coöperative growth require that the members be acquainted with each other to inspire confidence. Later, after the enterprise has developed and most of the personal elements of friction have been worn off, personal acquaintance is of less importance, the greater confidence in the business itself having lessened the need for confidence in the other members.

In almost every sort of coöperative venture which has proved successful, the establishment and permanent maintenance of local units has preceded federation. In very few cases has it been possible to promote coöperation from outside a given community. As examples, a local creamery is easily operated by a coöperative concern because the patrons, for the most part, center about and do the major portion of their business through the same shipping point. There are great numbers of coöperative local creameries in regions where the supply of butterfat is adequate. On the other hand, centralizer creameries in the United States are rarely ever coöperatively owned and operated. They require the gathering of cream from numerous communities and under these conditions farmers have rarely coöperated successfully until after local organizations have been established. In general, therefore, to be successful, farmers are organizing locally around one shipping point or in one community.

Amount of savings important. — Ordinarily, farmers are interested in coöperative organizations in proportion to the money returns derived. If an undertaking is commenced which, after considerable experience, fails either directly to increase prices to farmers for their products or to make sav-

ings which are pro-rated back to them, interest lags and eventually disappears. The time to make careful estimates of the possible savings obtainable by the coöperative handling of given products has been proved by experience to be before the new business is started and not after some months or years of operation. Without exception, experienced coöperators urge that great difficulties and probable failure face the coöperative concern which does not return to its patrons a substantial sum of money over and above that which private concerns permanently make possible.

Speculation undesirable. — Farmers as a rule disapprove of having a manager use their money and products in speculative ventures. This is a perfectly reasonable attitude. However, records show that a board of directors or a manager may attempt to utilize any kind of business in a speculative manner. The point which farmers are particularly concerned about is that their undertaking actually be free from the risks to which a speculating management might subject it. They are also cautious, when organizing, to avoid the selection of enterprises which are of a highly speculative character. In highly speculative lines of business, losses occur frequently and with a high rate of failures among concerns blindly started by sincere and well-meaning farmers.

Character of Coöperators. — The success or failure of coöperative organizations depends directly upon the existence of coöperative spirit and the loyalty of the coöperators. These are elements of moral character which constitute the foundations of any effective organization. Their creation is difficult and growth slow, two facts which have been repeatedly overlooked by those who look to coöperation as a panacea for the farmers' ills. Lack of these moral characteristics lead members to tear down their own organization. Coöperators with those characteristics are builders, not destroyers.

Coöperative inclination essential. — Farmers, and for that matter people generally, differ greatly with respect to the personal characteristics which help or hinder coöperative success. Selfish, individualistic persons find it much more difficult to coöperate happily and successfully with other people than do those of a give-and-take temperament. Successful coöperators are enthusiasts for team work. They work constantly for the success of their organization and think of it as one of their most important personal affairs. In other words, they have become imbued with the real spirit of coöperation, which means practical mutual helpfulness.

Loyalty necessary. — "One's loyalty to country and home" carries a meaning which is clearly understood by every one. Loyalty to one's coöperative organization means that after choosing to coöperate in a venture in which the objects can be realized, the coöperator shall give to the organization constant and wholehearted interest and support. Loyalty to a coöperative marketing concern particularly means that each farmer will constantly sell all of his products or continually purchase all of his supplies through the organization of which he is a member. The reasons for this are easily explained. The concern is started on the basis of a known volume of business determined by the promise of each member to do all of his selling or buying through the coöperative company. If a larger number of farmers join than was at first considered possible, the increased size of business reduces the cost and increases the savings. On the other hand, if few farmers join, the smaller volume of business increases the cost and reduces the savings. When the patrons of the coöperative concern take their products to a private company or buy from such companies instead of dealing with their own company, they reduce the volume of business handled. This increases costs per unit handled, reducing the amount of savings. Very frequently the direct result of this

disloyalty is to change a company from a successful to a bankrupt condition, which usually brings immediate dissatisfaction among the members and leads to ultimate dissolution. Farmers who are not willing to deal constantly with their own concern cause more difficulty than do those who refuse to join at all. In many cases such refusals would have prevented the establishment of organizations which failed later on account of inadequate business due to nonsupport of members.

Features of Coöperative Organization. — The immediate financial purposes which farmers have for organizing a coöperative association are, first, to make savings on the business; and second, to distribute the savings back to the patrons of the concern. In accomplishing their purpose, farmers handle the same products and follow many of the same business procedures which are customary with private companies. The essential differences in the form of organization for coöperative companies as distinguished from private companies are found in the provisions regarding membership, capital ownership, rate of interest on capital, disposition of savings, and the method of voting. Each of these features is designed to safeguard the interests of the group and to realize the ideals of coöperation. Successful coöperators insist that each prospective or actual member of a coöperative organization has much to gain from familiarity with these important principles.

Membership to patrons only. — Every increase in the volume of business gives added opportunity for greater savings through coöperation. Each prospective patron of the business is therefore an asset to a coöperative organization, and the policy of encouraging his patronage is worth while. Only those who actually deal with the concern, however, should be permitted to become members.

Ownership of capital limited. — Those who own considerable proportions of the capital used by business concerns fre-

quently exert their influence in favor of high rates of return on capital. The logical outcome of this tendency is a corporate instead of a coöperative organization. Hence, in order to preserve the coöperative principle, experience indicates that it is necessary to eliminate as far as possible any tendency to manipulate the methods of distributing savings in favor of capital owners and against the interests of those who contribute business. Various states limit by law the amount of capital which one individual may own to as low as 5 per cent of the organization's total capital. In any case, the limitation should restrict ownership by one person to a small fraction of the total stock. In case of nonstock companies contributions of capital with which to operate the business are just as necessary as in the stock form of organization, but the inclination to manipulate capital ownership is more easily controlled by use of assessment plans or by other arrangement, such as revolving funds, based on the volume of business transacted per member.

Interest on capital fixed and nominal. — Because numerous coöperative companies have slowly changed into corporations by increasing the rates of interest paid on capital and reducing the amount of savings that are returned to the individual coöperators, it is exceedingly important to have limitations in the rate of interest paid on capital. It might be well to have capital subscribed on the definite condition that interest rates are fixed at a rate of 6 per cent. Contributors could be informed clearly that any savings made on the business would be distributed, not on the basis of capital contributed, but in proportion to their contribution of products or patronage. With this understood, desire to manipulate for personal advantage would be reduced to a minimum.

Savings for the patrons only. — The best individual welfare of the members of a coöperative company is realized when the company itself is developing on a successful and finan-

cially sound basis, when the coöperators are acquiring consistently a fuller knowledge of how to work together efficiently, and when there is turned back to patrons a measurable saving in the form of money. In the most successful farmers' concerns the balance, after paying all costs of operation including fixed interest on capital, is distributed entirely for the benefit of members partly in the form of a reserve or sinking fund, partly for educational publicity, and the rest (or major portion) directly to them in cash. A proportional distribution of the net savings, which has been successfully used in associations with stock, is here suggested: 20 per cent of the total is set aside for the reserve fund, 5 per cent for the educational fund, and 75 per cent is prorated to the patrons in cash. That portion of the savings which is paid in cash is divided among the members in proportion to their contribution to the value of the annual business transacted by the company. In associations providing for capital through assessments or by a scheme of rotating capital based on the business transacted, profits or savings do not come into existence, since the entire income is expense either in the form of deferred price to farmers or in expenses covering operations, educational work and sinking fund.

Method of voting. — The control of a coöperatively owned business rests with the coöperators. Coöperation is essentially a democratic form of organization and as such all tendency toward individual or minority domination and its consequent evils is hardly if at all possible. The most successful means of realizing this aim is the "one-man-one-vote" principle. In no case are truly coöperative organizations conducted on the share-vote basis, unless share ownership is strictly proportional to the amount of business contributed by each member and patron. Each member has only one vote, regardless of the amount of capital which he may

have contributed. Group discussion and action while slow is more acceptable to farmers than dictation accompanied by injured feelings and consequent animosity.

Fundamentals of Efficient Management. — *The manager* — The first essential for the efficient operation of any business is the manager. The knowledge and skill requisite to the proper management of a successful elevator, store, or other undertaking, is not gained without considerable expense and time. Experience ripens the judgment and creates the buying and selling contacts and relationships which make the unusual manager so valuable, for it is through these characteristics that the unusual manager has built up the outstandingly successful coöperative companies. In spite of these facts few coöperative concerns are paying sufficient salaries to attract managers of the caliber that is essential if coöperation is to be made the success which it could readily become. In the noted cases of coöperative endeavor in Iowa, Minnesota, Wisconsin, California, and many other regions, coöperative organizations have found that a manager who is worth while to a private business is even more valuable to a farmers' coöperative concern. In these cases farmers have competed with private enterprises and have drawn away from them their most capable managers, who thereafter made coöperative business remarkably successful. The secret of the change was the payment of salaries which attracted capable, experienced managers and which outbid others who desired the same service.

Farmers' coöperative organizations generally have failed to pay sufficiently high salaries. They have suffered the consequences in failing companies and lost capital. In the future there is ample justification for a more liberal attitude. Numerous instances might be cited to show the effect of employing a capable manager, who, in spite of the higher salary, was able to make substantial savings for the farmers

in place of heavy losses. In this connection all that was said in Chapter XII concerning the value of a capable manager applies here with double emphasis. No coöperative undertaking which has an adequate volume of business can afford to hire any but competent managers. The best are none too good and are relatively cheap at much higher salaries than must be paid to attract them. Competent managers are not usually obtainable unless farmers are willing to pay more for them than a competitor. They can usually be secured if their competitive market salary is offered.

Adequate capital. — The fortunes of business are such that a company is not confined entirely to methodical and regular development. Unusual opportunity for expansion frequently meets with the limitation of an inadequate supply of capital. In order to meet all normal financial needs of the enterprise and, in addition, to assume the responsibilities of unforeseen possibilities for expansion, a coöperative organization, according to experienced coöperators, requires liberal provision for the actual raising or borrowing of necessary funds at critical times. All that was said in Chapter IX emphasizing the economic importance of financing and in Chapter XII concerning adequate financing bears further emphasis here because farmers generally have been disposed to overlook this important requirement.

In keeping with the special objects for which the coöperative form of organization is selected in preference to the corporate form, it is not surprising to find that there are certain special problems confronting coöperative financing. Since the object of coöperation is to consolidate, so far as possible, all of the business of a given kind under one overhead organization to the end that the contributors of this business shall be benefited proportionally, it is only equitable that each should aid in financing the undertaking in proportion to his patronage. Owing to inevitable changes

in the personnel and in the volume of products per member, democratic financing necessitates rearrangement of the original subscriptions or contributions of capital.

A most excellent illustration is the experience of the Wisconsin Cheese Producers' Federation.[1] In 1914, when operations were started, this marketing company had an authorized capital of $2000, of which $651.69 was paid up. Equipment capital was provided by a lease of warehouse and storage space. It was not realized apparently that working capital or funds with which to pay in advance for cheese supplied by its members necessarily had to come, if at all, from a large capital stock, mostly paid up, or from loans. Fortunately, while the enterprise was small the president of the Federation was able to sign notes for sufficient loans from the local banks to carry the business. Profitable growth combined with a willingness on the part of the original members to leave their annual surplus in the treasury enabled the company to get along. In 1919, however, the size of the business almost doubled. The number of local factories comprising the Federation had also greatly increased. As a result the volume of business had outgrown the capital and surplus of almost $38,000, about 80 per cent of which was accumulated from patronage provided by the original small number of factories. This is a case where a coöperative business developed a very undemocratic form of financing. The old factories which had carried all the load of starting and developing the undertaking were still assuming the entire capital burden, while it was the increased volume of cheese from new factories, none of which had contributed their quota of capital, that caused the crisis in financing. To solve this problem of inadequate capital and to insure proportionate capital contributions from all members in the future the following article (Article VI) was written into the new by-laws

[1] *The Federation Guide*, Vol. I, No. 1, pp. 1–2.

at the time of reorganization. It is quoted here to suggest a means by which a coöperative enterprise may meet and solve a serious financial difficulty. The article reads:

"The board of directors shall have authority to issue shares of stock or the promissory notes of this association, in payment of patronage dividends to stockholders, and to provide for a method of rotating capital based upon the tonnage of cheese marketed by the stockholders through this association."

For coöperative companies organized on the nonstock basis and in which nontransferable membership certificates are issued, capital contributions to finance the undertaking in proportion to patronage may be regulated by a system of assessments to be paid outright by the members or by a plan of deductions from the value of business done for each. The point to be emphasized is that each patron or member should bear his proportional share of the burden of financing a coöperative marketing enterprise. This may be accomplished in the manner suggested or by other suitable plans agreed upon.

Standard accounting system. — Almost all coöperative companies are concerned with problems of cost of labor and supplies, disposal of products, interest payments, disposition of savings, and many other items of income or expenditure. Records are therefore indispensable. The manager finds it necessary to have accurate records which will give him a correct understanding of the business. Without such facts he could not have the information needed to answer correctly questions about the costs of operation, the prices paid, the savings made, or any other specific inquiries. Furthermore, without complete records it would be impossible to determine how much of the savings should be returned to the different members.

It is obvious that if a manager is worth while, a system which indicates what he has done and aids in deciding what to do in the future is also valuable. A standard system which gives facts that are directly comparable with the results ob-

tained by other similar concerns is highly desirable and commendable. Such systems and standard accounting forms are obtainable from the Bureau of Markets, United States Department of Agriculture, or from the various State Market Divisions.

Finally, in the more successful coöperative concerns the records are regularly audited by expert accountants to locate and correct possible errors and to make out a comprehensive statement of the condition of the business. The manager himself is greatly aided by the auditing of the books because accurate knowledge of his methods and their results gives greater confidence for the future, not only to the manager but to the patrons of the business as well.

Federation Vital in Constructive Coöperation. — If each of the principles just mentioned has been faithfully applied, the local coöperative organization is undoubtedly on a sound basis and headed for success. However, a single local concern centering about one shipping point, no matter how successful, covers but a fraction of the existing route from farmer to consumer. Therefore, it is able to make but a fraction of the savings which more complete coöperation, such as that attained by the California Fruit Growers' Exchange, secures. The local company finds that its activities and possibilities for reducing the cost of operation and increasing the savings are confined almost entirely to a few functions such as receiving, preparing for shipment, and forwarding products raised in the locality, or receiving and distributing supplies to be consumed in the local territory.

Many of the chief opportunities for benefit through coöperative organization lie in the fields which an individual local concern cannot hope to enter. By coöperation between a group or series of these small companies, however, it is possible to undertake jointly federated buying and selling and to benefit thereby. Such organizations as the California

Fruit Growers' Exchange and the Canadian Grain Growers and other large coöperative concerns are deriving a large share of their usefulness and financial benefits from the terminal or federated phases of their aggregate activities. Whenever a group of local enterprises reaches the stage where larger quantities of products or supplies would facilitate greater economy in the assembling and exchange processes, federated activity becomes not only desirable but essential for further development of the services and returns which coöperation promises for its patrons. To establish federations, the officials of each local organization arrange for coöperation among local units similar to that already discussed for individual farmers in maintaining their local association. In other words, federation refers to the establishment of a coöperative organization among local coöperative associations to further enlarge their savings and thereby give farmers greater returns than could be obtained without federation. (For further discussion of the objects and accomplishment of federations, see Chapter XVIII.)

SUMMARY

1. The ideal of coöperative organization as applied to marketing is to establish among farmers a democratic means of employing middlemen to render essential marketing services for them. The coöperative idea differs essentially from the corporate idea largely in objects. These differences arise in connection with (1) the establishment and operation of a marketing system for profit versus service, and (2) disposition of earnings or savings.

2. The corporate organization seeks to establish and maintain a distributing system primarily to provide a means of using an industry's need for marketing services as an opportunity to invest capital and earn profits or dividends thereon. A marketing corporation's interest in the industry arises because of profit possibilities and ends when profit making permanently ceases.

3. The true coöperative organization seeks to establish and maintain a distributing system to provide adequately and dependably at minimum cost the essential marketing services of which the industry and its individual members have constant and vital need. Its justification lies in rendering these

services at a lower cost and in bringing to farmers a higher proportion of the consumer's dollar.

4. Because of its democratic character, coöperative organization is hampered by the lack of intelligence of its least informed members. Education is therefore essential to inform all members concerning the principles of coöperation and of their responsibilities as coöperators. Safeguards are also necessary to prevent minority domination contrary to the interests of the relatively inactive majority.

5. Coöperative marketing concerns, to succeed, must follow all of the essential principles which apply to efficient private enterprises, in addition to the special points observed above. (See Chapter XII.)

6. Federation of local coöperative enterprises is necessary if coöperative marketing is to endure as a constructive means of improvement in marketing. (See Chapter XVIII.)

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CHAPTER XIV

MARKETING METHODS AND THEIR SIGNIFICANCE

THAT the conditions under which modern production and consumption take place require the performance of no less than eight distinct kinds of essential marketing services does not by any means complete a discussion of marketing. Both the public and those middlemen who seek profits are deeply concerned with the question of whether the best methods of performing the essential marketing services are employed, not only in a given place but also for a particular industry. That there are different marketing methods by which necessary services are performed becomes evident to every one who takes time to make even the most perfunctory sort of marketing investigation. It is equally certain that within any fixed period there are good, bad, and indifferent methods in use by various agencies whose fields of effort are unavoidably competitive. Under practical everyday trade conditions the casual observer cannot unravel these methods nor comprehend the causes for varying degrees of efficiency, and for the totally different proportions of expense and profit into which constantly fluctuating margins are being divided.

To visualize the activities of all kinds of middlemen and others engaged in the interchange of farm products necessitates a classification of how marketing services are rendered. In Chapter II it was pointed out that there are three principal ways by which these services are being performed. These are (1) regular marketing method; (2) integrated marketing method; and (3) direct marketing method.

What the Regular Marketing Method Means.—In Chapters X and XI the necessary steps in distributing farm products were found to be (1) local assemblers for car-lot shipment; (2) processors for 75 per cent of farm products representing raw materials; (3) a selling department or scheme of brokerage; (4) local wholesalers; and (5) retailers. While there are deviations from these generally necessary steps, and in some cases the addition of several more middlemen actually reduces the total marketing cost, these are the important so-called steps in marketing farm products. Under the regular marketing method each of these steps, for example, a grain elevator and a flour mill, followed successively by a flour broker, a local wholesaler handling flour, and a retailer, is each separately owned and operated by distinct individual concerns. The middleman conducting an establishment to render one or more services at each of these steps is in business to gain whatever profit or saving his efficiency makes possible. Thus the movement of grain or finished products from one step to another represents a complete transfer of ownership. The value at which transfer is effected furthermore settles all question of profit or loss to the seller upon the particular transaction.

The regular marketing method is typically represented by enormous numbers of small, disconnected, destructively competitive middlemen on each step. The question of mere physical numbers and small average size of individual business unit militates against all that efficient distributing requires. Both the cost of operation and the difficulties of securing correct market information prevent these duplicating small units from doing many of the things which are necessary if marketing is to function as fully as it should in the interests of farmers and consumers. Yet in spite of this the regular marketing method is followed in the disposition of the majority of farm products. Instead of applying scientific prin-

ciples to marketing in a manner that would nicely adjust supply to demand, thus preventing violent and hazardous price fluctuations, the regular marketing system continues to make these objects less and less attainable. As a consequence, farmers, middlemen and consumers are all restricted in their actions by needless uncertainty caused by the retention of poor methods in the marketing system. Most of those who follow the regular marketing method in rendering essential marketing services are manifestly not in a position to operate at the lowest costs or to sell their output to the best advantage. Their operations are not sufficiently correlated to prevent the periodical flooding of markets with the disastrous consequence of demoralization of price and of demand. Contrary to popular notion, price fluctuation is not conducive to business prosperity; on the contrary, it is ruinous.[1] Yet price fluctuation as a consequence of market flooding and other serious results of miscalculation in storing and distributing is an inherent weakness of the regular marketing method.

What the Integrated Marketing Method Means. — The integrated marketing method differs from the regular method, not in the elimination of any of the essential services or steps, but in the fact that each middleman who renders these services upon each of these steps is no longer working individually for himself to make a separate private profit, but is employed on a salary or commission basis to serve as part of a closely connected scientific system of distributing, whether it be private, coöperative, or governmental. By federation into groups of properly correlated private or coöperative enterprises not only important reductions in operating expenses but considerably increased prices through efficient

[1] The California Walnut, California Walnut Growers' Association, Los Angeles, Calif., p. 60; Influence of Supply on Prices, by A. U. Chaney, Proceedings of the Second Pan-American Scientific Congress, Section III, Vol. III, pp. 735–740; Report on Eatmor Cranberry Sales, Season 1918, p. 6.

feeding of markets are realized. Through organization into integrated groups many of the inherent weaknesses of the regular marketing method are overcome. System virtually is created out of chaos. Marketing machinery is changed from that of ineffective, disconnected units into large-scale comprehensive concerns capable of solving the really important economic problems of marketing.

The integration of marketing may be carried to a point where it is complete, meaning that every marketing service between farm and consumer is performed by one organization through its respective branches. Thus, for example, a comprehensive butter manufacturing and distributing company might maintain its own cream stations, creameries, selling system, local wholesalers, and even retailers. In a few instances this has been done, but economic expediency eventually led to the elimination of the retail step. Usually integrated marketing enterprises are only partially integrated. Such is the case with the California Fruit Growers' Exchange, which extends from farmers to wholesalers. The same is true of many large private concerns manufacturing farm raw materials into finished commodities with their own assembling and distributing units and connections extending from farmers to retailers. The point for emphasis is that practically every undertaking which has become noted for its part in improving marketing conditions has brought about some degree of integration among formerly disconnected individual units. This is true whether the enterprise noted be that of the Danish butter marketing system, the New Zealand coöperative centralizer creameries, the American private centralizer creamery systems, the Siberian creamery unions, the famous California coöperative distributors, the large meat packers, the Canadian grain growers, the New York grape distributors, or numerous others. In all cases of this kind the object has been to displace the inherent weaknesses of

the regular marketing method with applied principles of scientific distributing. Success has come wherever the change from the regular method to the integrated method has actually been accomplished.

What the Direct Marketing Method Means. — In a popular sense the term *direct marketing* has been very loosely used to express the idea that the work which must somehow be done by marketing should be accomplished by some plan which could operate with much lower margins between farmer and consumer. It has been understood to represent one idea to a given group of farmers and a totally different thing to another group. Furthermore, consumers have rarely, if at all, comprehended the real issue involved by a program of direct marketing. Large numbers of people, irrespective of whether they were farmers, consumers, or even middlemen, have demanded the advantages which popular acclamation attributed to direct marketing without knowing the real meaning of the term. Generally what each of these groups has wanted could not possibly be gained through the scheme suggested by the pet phrase, "direct marketing." Many fragmentary ideas, such as individual shipment of live stock to a packing house or individual express shipment of cream by a farmer directly to the creamery, have been regarded as a program of direct marketing in practice. This, however, has not by any means been direct marketing. The very supposition that practices of this kind were representative of the direct-marketing method is proof of the widespread misconception of the fundamentals of any of the important marketing methods.

The direct-marketing method refers very specifically to a system in which farmer and consumer make their own contacts and arrangements whereby the products of farms are placed with consumers. It definitely means that no middleman shall own the products between farmers and consumers.

In fact, no middlemen whatsoever are involved except those operating the mail, telegraph, and telephone systems and those operating the commercial transporting facilities such as freight, express, and parcel post. In other words, the direct-marketing method refers to a system by which farmers and consumers obtain contact with each other either in person at the farmers' or the consumers' residences, or at some intermediate place such as the public market, or that they secure business contact by direct communication with each other. In the first case either the farmer or the consumer renders the service of transporting. In the second instance, this service is performed by a commercial carrier who does not own the products. The direct method is therefore clearly a plan to reduce marketing costs and margins by the elimination, so far as possible, of all middlemen, the services formerly rendered by them to be henceforth provided either by farmers or by consumers. The only exception to this, of course, is the employment of middlemen for facilitating communication and for rendering the transporting service.

Why Direct Marketing is Usually Uneconomical. — Can the farmer specialize in rendering the essential marketing services and continue to be an efficient commercial farmer? That is the question of fundamental importance which the public has not answered. Furthermore it has not been asked and answered by farmers whose very success depends upon the conclusion reached. Equally fundamental is the query, "Can the consumer undertake to render these essential marketing services and continue to work in his chosen field of specialized production?" That the consumer has not thought out clearly what would have to be done either by himself or by the farmer is a leading reason for the persistent clamoring by consumers for a system of direct marketing.

There are no less than three striking reasons why the direct marketing method cannot be substituted for either the regular

or the integrated marketing methods. These are (1) a very large proportion of farm products must be processed; (2) long distances intervene between farmers and consumers; (3) economical transporting requires car-load hauling over the railroads and neither farmers nor consumers produce or consume enough, as a rule, to meet this necessary condition.

Who Should Render the Processing Service? — Enthusiasts for the direct marketing method are faced with the practical question: "Will either farmers or consumers undertake to process farm products?" In Table XXXIII are presented data giving the benefit of every doubt to the advocate of direct marketing. No one is willing to argue that a considerable part of poultry products do not require processing. Yet the arrangement in the table places this entire

TABLE XXXIII. — PROPORTION OF VALUE OF ALL FARM PRODUCTS MARKETED REQUIRING PROCESSING [1]

Product	Per cent Requiring Processing	[Per cent not Requiring Processing
Animals sold and slaughtered	24.7	—
Dairy products	7.8	7.1
Cotton	12.4	—
Wheat	10.8	—
Other grains (excludes wheat and corn)	8.1	—
Poultry products	—	7.3
Vegetables (excludes potatoes and sweet potatoes)	—	4.1
Potatoes	—	3.1
Tobacco	2.9	—
Fruits (excludes apples)	—	2.4
Apples	—	1.4
Wool	.8	—
Sugar crops	.8	—
Sweet potatoes	—	.7
Miscellaneous crops and animal products	5.6	—
Total	73.9	26.1
Grand total	100.0	

[1] Based on data from Bureau of Crop Estimates, U. S. D. A. and various other official sources.

group of products in the class of finished commodities. Similarly with vegetables and fruit large amounts are processed, as, for instance, canned peas, corn, tomatoes, preserved and canned fruits of all kinds, fruit butters, jellies and jams. Yet these products have all been considered in the table as not requiring processing. Figures are not available to show the exact proportion of these farm commodities which are ready for immediate consumption and the part which must be processed first. Doubtless no less than four fifths of all farm products are strictly in the raw material class with not to exceed one fifth suitable for uninterrupted movement from farms to consumers. At the outset, then, were it possible to establish an extensive and effective scheme of direct marketing, not more than one fifth of farm products could be thus handled unless either farmers or consumers would accomplish the service of processing the other four fifths. That neither farmers nor consumers will do this is a fact of recognized economic importance not only by farmers and consumers in this country but in every other land which has advanced beyond the stages of early commercialized effort. The unmistakable trend is toward rapidly increased performance of this processing service by middlemen, either private or coöperative, who are vastly more efficient than individual farmers or consumers could possibly be in rendering for themselves the processing service for minutely small quantities of raw materials. The conclusion stands therefore that not more than one fifth of the farm products of the country would be suitable to a direct marketing scheme.

Will Farmers and Consumers Span Long Distances? — It is emphasizing a common understanding to say that confidence must exist as the basis for every business transaction. One of the primary reasons why marketing is so complicated is the fact that contacts or other connections must bring about confidence before transfer of products can be gener-

ally practiced or facilitated. Many of the difficulties of the present middleman system is that these contacts and connections have not led to sufficient confidence, with the result that wastes, losses, and otherwise unnecessary costs are unavoidable. Yet middlemen are specialists in making contacts for the purpose of establishing confidences that will promote expeditious transfer of commodities.

Can it be hoped that farmers and consumers, each devoting a full work day to their specific lines of production, will be able to disregard long distances and establish confidential relations which would result in the transfer of one fifth of all farm products by the direct method? Experience answers this question in the negative. Survey of the various countries and states of dense population where farmers and consumers are constantly thrown in contact, because of the characteristics of local life, indicates that direct marketing can be successfully developed under certain conditions. The most important condition emphasizes that direct marketing develops to advantage only where distances between farmers and consumers are so short that this factor does not prevent the building up of confidential business relations between the two parties. On the contrary, direct marketing has not developed appreciably because industrial population is concentrated in cities, while agricultural population is widely scattered in the open country, with long distances intervening between the two groups. None but the misinformed would care to deny that these are the fundamental characteristics of American life. These features are amply illustrated in Figs. 28 to 34. Because of these distances farmers and consumers are not establishing confidential and direct business relations and accordingly only a small fraction of one fifth of all farm products, probably not 5 per cent, is actually marketed direct.

Excessive Freight Cost Prohibits Direct Marketing. — Because farmers produce commodities in quantities varying

from a fraction of one car load to not more than a few car loads in the course of each year, while consumers purchase in amounts varying from 1/40 to 1/400 of a car load annually, any scheme of applying the direct marketing method would be compelled either to transport products in less-than-car-load lots or to employ middlemen to make possible car-lot shipments. To employ middlemen for this purpose, however, at once reëstablishes either the regular marketing method or the integrated marketing method. Thus an impractical ideal — visionary because it overlooks all of the fundamentals of economic progress — fails because of mere physical impossibility. The increased cost of marketing would undoubtedly neutralize any other advantages claimed for the change, because excessive freight expense would have to be met under the direct-marketing method. In place of a series of actual middleman contacts, which now guarantee the movement of products from farms to consumers, the substitution of direct methods in marketing would institute a régime in which the uncertainty of whether farmers and consumers can establish confidential business relations would certainly paralyze commercial intercourse.

The Marketing Methods in Actual Competition. — These, then, are the marketing methods under which marketing agencies struggle in our competitive existence. There are advocates and enthusiasts for each method. One business man conducts his operations according to the regular method, another follows the integrated idea and still another contends that his direct scheme is best. Regardless of what each may think about his chosen method, the respective merits are determined by the competitive results for all enterprises which do not have monopoly power. Furthermore, no middleman has a vested interest in his line of work. Efficiency alone is the justification for his existence in marketing. For the very reason that monopoly is not the rule in the distributing

of farm products and that competition is generally wide open, usually not even limited by the establishment and enforcement of urgently needed standards or rules of the game, the arena in which middlemen conduct their operations is crowded with enterprises ranging from those which consume more than the competitive margin by excessive expenses to those whose expenses amount to only a fraction of the margin. This condition is illustrated by Fig. 43 in Chapter XVII, where this problem of duplicating middlemen on the one hand and monopoly on the other is discussed at length. In this illustration the black area represents the varying operating expenses of middlemen which range from more to less than the margin between their buying and selling prices for commodities handled. The white area between the two parallel lines represents the varying profits realized by middlemen from a uniform competitive margin or difference between what is paid by them for products and what consumers pay for the same articles.

All middlemen in competitive lines of endeavor, regardless of the marketing method employed, rank themselves automatically along the sloping line separating the black area from the white field in Fig. 43. They do this unconsciously or consciously by virtue of their differing degrees of efficiency. In this respect it is immaterial whether middlemen are private, coöperative or governmental so long as their activities are strictly competitive. Each of the marketing agencies is free to utilize the same marketing method and consequently with identical degrees of operating efficiency they would all assume the same position on the sloping line between black and white in Fig. 43. Fortunately, the acid test for determining relative efficiency of different marketing methods can be made by comparison of comparable business facts taken from the accounting records of reliable companies. As an illustration of this point take the relative efficiencies of the

regular marketing method and the integrated method as applied in the butter industry. Comparable facts from actual investigations are shown in Table XXXIV, which indicate that the usual expenses of the local coöperative creamery system, which represents the regular marketing method, amount to 6.8 cents per pound of butter, while those of the direct shipper centralizer system, typifying the integrated method as it operates in regions suitable to local creameries, total only 4.8 cents per pound. Thus the integrated method when receiving the same margin as the regular method provides a profit of two cents per pound when the regular method is able only to meet expenses. If a local creamery making a profit of one fifth of one cent a pound above its costs of operation earns 5 per cent on its capital, assuming the same rate of capital investment per pound of butter output, a creamery using the integrated marketing method would earn 50 per cent.

TABLE XXXIV. — RELATIVE COSTS OF INTEGRATED AND REGULAR MARKETING METHODS IN BUTTER INDUSTRY [1]

MARKETING SERVICE	COSTS BY INTEGRATED MARKETING METHOD,[2] CENTS	PER CENT OF SALE PRICE	COSTS BY REGULAR MARKETING METHOD,[3] CENTS	PER CENT OF SALE PRICE
Transporting	1.6	5.3	1.5	5.0
Assembling	.7	2.3	—	—
Processing	2.0	6.7	2.3	7.7
Distributing	.5	1.7	3.0	10.0
Total	4.8	16.0	6.8	22.7

Competitive Profits and Savings are the Premium for Efficiency. — The public unfortunately does not distinguish between high profits secured on the one hand by artificially raising the price and widening the margin through monopoly

[1] Exclusive of freight and retailing expense.

[2] Data from *Kansas Exp. Sta., Bul. 216*, pp. 48, 53, 54, 56, for direct shipper system.

[3] Data from *Wisconsin Exp. Sta., Bul. 270*, pp. 66–68 for coöperative creameries.

power, and those derived on the other hand by reducing expenses through the development of increased efficiency. High profits of monopolies work against the public interest in the long run in all but exceptional cases. High profits on the part of freely competitive enterprises, in direct contrast with those of monopoly, place the premium upon the development of greater initiative and industry because these alone are the source of better marketing methods and of higher efficiency. But let it be asked in all seriousness, will people in any field of effort exercise initiative and industry if the premium is wrongly placed? Will the farmer who wants the best hired laborer expect to secure the services of such a man by offering the lowest pay? Or does the middleman who desires fancy products expect to get them by bidding only the price of the lowest grade goods? What of the consumer? Does he succeed in purchasing fresh eggs for the price of the poorest storage eggs? Surely not. Each of these parties gives a premium for the goods and services of unusually high grade. This premium is in the tangible form of higher prices. In all competitive businesses the premium consists either of profits or of savings. As a general rule, earnings constitute profit to private concerns and savings to coöperative associations. It is for this element of profit or of saving, therefore, that people of initiative and industry are stimulated to invent new and increasingly efficient methods of marketing. Failure to secure the premium in the form of profits is commercial proof of relative inefficiency. The earning of substantial profits, on the other hand, is evidence of superiority.

In testing the relative merits of the marketing methods according to the principle pictured in Fig. 43 the integrated method is more efficient than the regular method. Direct marketing does not enter the comparison because of its characteristics set forth earlier in the chapter. By nature it is not a method of marketing to be considered coördinate with

but rather supplementary to the other two methods. Under special circumstances it accomplishes what neither of the other methods undertakes or even is capable of doing. General improvement throughout the field of marketing farm products requires constructive and not destructive changes. Every move to artificially regulate, confiscate, or otherwise interfere with the placing of adequate premiums upon the application of ability, initiative, and diligence among marketing enterprises must inevitably be destructive of the public welfare. Reduction of the margin between the prices paid by consumers and those received by farmers is impossible for marketing concerns when expenses consume it entirely. This is not so, however, for the more efficient companies which make handsome profits. Were they the only ones in business and operating on a truly competitive basis the margin could be greatly reduced and still permit them to earn stimulating profits. Constructive action requires the elimination of the less efficient middlemen so that the margin may be narrowed without interfering in any way with the effectiveness of profit and of savings as premiums for stimulating better marketing methods.

Utilization of By-products and Marketing Efficiency. — Reasons for the superiority of the integrated marketing method over the regular method are not difficult to find. The two outstanding causes for this greater efficiency are found in the utilization of by-products and in the maintenance of effective distributing organizations which are able to feed markets so that the best prices are obtained.

Among scattered processing plants the quantity of waste which might be utilized for by-product purposes at each local point is not ordinarily great enough to suggest profitable use in this manner. As a result large quantities of usable raw materials are annually lost for either middlemen, farmers, or both, because the individually small and disconnected

plants are widely scattered. While in some cases profitable commercial methods are developed by other concerns to purchase these remnant or refuse raw materials for use in by-product plants, it is not by any means the rule. The cheese industry gives a fair idea of the importance of the problem and of the substantial effect of proper development of by-products upon the net gains in operating processing plants. Not until recent years have factories making American cheese practiced the skimming of whey cream and the manufacture of butter as a by-product. Consequently, the butterfat was either lost or at best only fed to hogs. By skimming whey butterfat and developing its by-product possibilities the income of many cheese factories has been very appreciably increased. For instance, the detailed records of a cheese factory at Riley, Wisconsin, for the year 1919 indicated that 11.5 per cent of its income was from the sales of whey cream. The combined costs of maintaining the factory and of making cheese, on the other hand, averaging 4.36 cents per pound, amounted to a figure equivalent to 11.84 per cent of the income. Thus from the developed by-product the cheese factory received an increase in income sufficient to pay almost all operating expenses. Since the average price received for cheese was 32.6 cents per pound, the comparative results for two cheese factories, one utilizing this by-product and the other not, would be about as shown on the next page.

A premium equivalent to an increase in price of more than one eighth is an enormous advantage. It represents an earning power on invested capital of more than 50 per cent over and above the earning of the same size of factory which, in the absence of by-product utilization, is able to earn profits of only 6 per cent on capital.

It should be emphasized that the great importance of by-product development in the processing of farm products is realized by middlemen handling some commodities, while by

those processing other raw materials the principle is entirely overlooked. Generally speaking, the distance separating scattered and unrelated individual processing plants and the numerous barriers against business relations resulting therefrom, are the main reasons why by-product utilization has not been developed more extensively. In the cheese industry the local factory is hopelessly small to permit individual development of the by-product idea. Fortunately, however, an account of the large number of cheese factories located densely in certain counties of Wisconsin, conditions were favorable to the development of independent companies to utilize whey cream for butter making. The ease and low cost of separating butterfat from whey and of transporting the whey cream a relatively short distance in concentrated form to some central whey butter manufacturing plant did for scattered independent cheese factories what for most small disconnected factories can be accomplished only through integration.

INFLUENCE OF BY-PRODUCT UTILIZATION ON CHEESE FACTORY RESULTS

	Factory Developing By-product Cents per lb.	Factory Not Developing By-product Cents per lb.
Income from cheese sales	32.60	32.60
Income from by-product	4.23	
Total income	36.83	32.60
Total expenses	4.36	4.36
Net price for cheese sold	32.47	28.24
Advantage due to by-product	4.23 cents or 12.8% premium over cheese price	

The possibilities of by-product utilization constitute an impelling motive for the integration of marketing units. Where production is sparse and processing plants are far

apart, a characteristic typical of the relation of quantity produced per farm to volume required for economical manufacturing throughout most of the United States, integration is practically the only means of gaining the full benefits from by-products. To gain this premium efficient centralizing systems have been built up by both private and coöperative initiative within the butter, fruit, nut, meat, and other important phases of agricultural marketing not only in the United States but also in various foreign countries. The attractive profits of many marketing companies and organizations are derived in an important measure as a result of substituting the integrated marketing method in place of the regular method.

Market Feeding Underlies Efficiency in Distributing. — Because farm production is seasonal while in comparison consumption is relatively uniform, the annual occurrence alternately of market glutting and of market starving constitutes a very serious problem. It is the superior distributing ability of the integrated marketing method, made possible by the immense volume of products handled under a single organization, which is the essential element required as a basis for the machinery by which market feeding can be carried out in the interests of all concerned. The marketing of products by these comprehensive systems is stabilized in much the same manner as insurance risks are stabilized in successful insurance systems.

The secret of effective insurance lies in the pooling of risk over immense numbers of farmers or of products scattered over wide areas. The greater the number or quantity insured the more nearly it is possible to scientifically calculate both losses and incomes. The pooling of all expenses and claims, coming from wide areas representative of all kinds of territorial conditions, makes possible successful operation of commercial insurance companies on the basis of narrow mar-

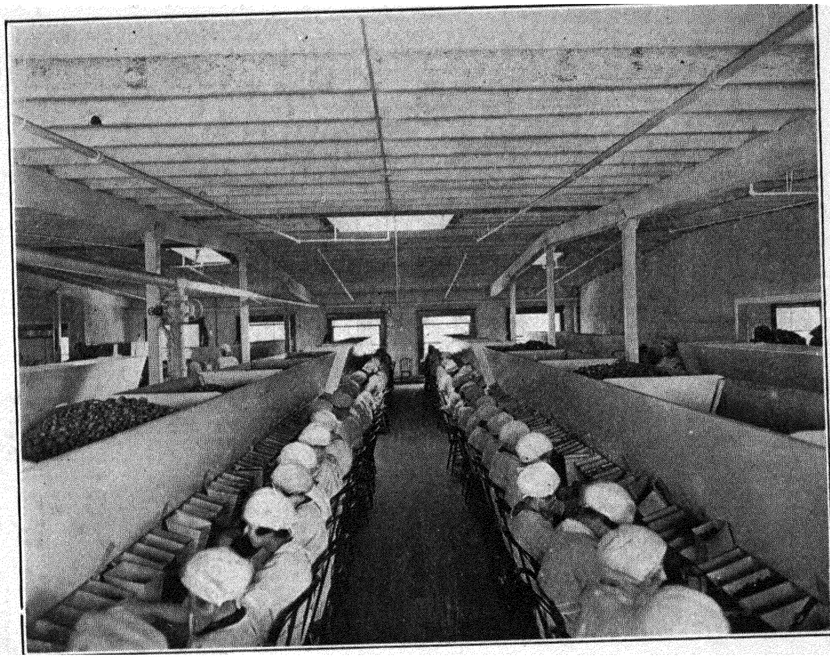

FIG. 39.—SAVING WALNUTS IN A BY-PRODUCT PLANT

Large-scale coöperative or other middleman systems make possible the development of by-products. The picture shows a section of the by-product plant of the California Walnut Growers' Association. All cull walnuts are sorted out of growers' deliveries because their appearance is unfavorable to marketing in their shells. After being cracked by a machine, the meats are separated from the shells and sorted into grades by women, of whom about 400 are employed most of the year. The walnut shells are then converted into charcoal, so that absolutely nothing is wasted. Money is now obtained for walnuts formerly wasted because by-product plants did not exist. (Courtesy California Walnut Growers' Association.)

gins which scarcely fluctuate at all. Thus policy-holding individuals who are stricken by misfortune are relieved of part of the burden of loss, thanks to the machinery connecting them with vastly larger numbers of other policy holders who have paid their premiums but have met no misfortune. In a very similar way comprehensive marketing machinery — typified by the integrated method — connects scattered individual consumers with dependable sources of supply. Even though both production and consumption vary seasonally and in different degrees, the integrated marketing method, because it connects large numbers of farmers with enormous numbers of consumers, is able to stabilize marketing to the best advantage. The immediate competitive advantage of the integrated marketing method over the regular method with respect to market feeding lies in the fact that the former implies the maintenance of definite distributing connections controlled by one central concern, while the regular method implies only disconnected small middlemen who, until integrated, are not able to maintain comprehensive distributing machinery. As a direct consequence of having numerous reliable market connections and the necessary distributive machinery, the integrated method makes unnecessary the continued overfeeding of already glutted local markets, because the machinery exists whereby these surplus quantities may be diverted at once to other local markets where shortage is imminent. Thus by literally "irrigating" the consuming territory with farm products through a comprehensive distributing system the integrated method realizes the sale of commodities at prices which average higher because they are stabilized more than those obtainable by the regular method where so much of the business is sold on flooded markets at seriously depressed prices. Examples of substantial benefits resulting from market feeding, without raising prices to consumers, have already been noted in Chap-

ter VIII, in Table XXXIV, and are further described in Chapter XVIII.

Importance of Distinguishing between Services, Methods, and Agencies. — Underlying all criticism of marketing and all intense feeling on the subject is the general impression that something is radically wrong. That human institutions are not perfect, and probably never will be, is a point which, however disappointing, nevertheless must be accepted as a condition of human existence. Instead of judging marketing systems by comparison with imaginary models of perfection and condemning them in entirety because they fall short of the ideal standard, it is imperative that the public face the issue in a practical, constructive manner. To do this, requires a clear-cut conception of three things.

First, there should be a general comprehension of what marketing must do. The public should know what the essential marketing services are and why they are necessary.

Second, it should be clear to all that the fundamental services are being rendered through means which differ from exceedingly low to very high efficiency. These different means of rendering services refer to the marketing methods discussed in the present chapter.

Third, the public needs to understand that there are different marketing agencies in order to realize who is responsible for the selection of the marketing method followed in a given case for rendering specific services. Naturally characteristic motives underlie the willingness of these marketing agencies to engage in the middleman business. Thus the conditions which stimulate one agency might not at all appeal to another agency. As a matter of fact, no competitive agency is obliged to select a method of marketing and conduct a business to render marketing services unless the conditions of business are appealing or stimulating to it. In other words, marketing agencies are motivated by the pre-

miums placed on their services. A change in conditions which alters the nature of the service needed or the method best adapted to rendering the service, or destroys the premium realized by given agencies, inevitably must have a profound influence upon the marketing system.

To alter the conditions of business in a manner that will be constructive of the desired results necessitates that both marketing criticisms and remedies be specific and accurate. Confusion of services with methods or with agencies blurs the whole subject of marketing. It is just this sort of blurring that has rendered futile much of the marketing criticism up to the present time. Critics — and these include almost all farmers and consumers — have been discussing and condemning marketing in general instead of directing their criticisms and suggested remedies at particular marketing services, methods, or agencies. The sport, as it were, of "shooting" at marketing has been developed as a shotgun affair hitting the whole subject, instead of a precise rifle fire striking the specific weaknesses or evils that exist.

While there are people who doubtless believe that the entire marketing system is wholly wrong, the economic experience of many countries and of numerous comprehensive marketing programs, whether instituted by farmers, consumers, governments, or private middlemen, all substantiates the conclusion that certain fundamental services must be performed by some kind of middleman system. They also emphasize that satisfactory results flow from the selection and use of superior rather than inferior marketing methods. One of the main points causing popular antagonism to the marketing system seems to be the fact that profit is made by middlemen. It appears that those with products to market are jealous of any kind of middleman who makes a profit from rendering services, no matter how essential these services may be to final delivery of these products to consumers. A very

unfortunate point about this attitude is that it prevents people from distinguishing between methods that lead to rendering services efficiently and those which lead away from efficiency. It causes condemnation of good methods when in reality the popular grievance is not against the method but against the middleman who happened to make a profit partly through use of a superior method. The subject of agencies and relative profits is treated elsewhere, particularly in Chapters XV, XVII, and XVIII.

SUMMARY

1. Marketing methods refer to the plan followed in distributing farm products. There are three main methods known as (1) regular, (2) integrated, and (3) direct.

2. In the regular marketing method essential services are rendered on each step in the marketing system by middlemen striving to obtain compensation for their services in the form of private profit or coöperative savings. Middlemen operating on five steps in the system, including a local shipper, processor, broker, wholesaler, and retailer, each endeavor to make a separate profit. Thus five profits in all are theoretically necessary. Little correlation among these disconnected units is possible.

3. In the integrated marketing method essential services are rendered on each step by middlemen employed on a salary or commission basis. Each does his work as part of a large system in which plans make possible effective correlation and the eliminating of needless effort and expense.

4. In the direct marketing method no middlemen are required with the exception of those who provide communication and transporting services. The idea is to have either farmer or consumer or both perform all required services, aside from the two just mentioned.

5. The direct method cannot be used for a maximum of more than one fifth of farm commodities because four fifths are raw materials which are converted into finished goods only by manufacturing. Only a small part of commodities suitable to direct marketing are distributed direct because of unsurmountable barriers preventing confidential business relations between farmers and consumers.

6. The regular method is typified by small business units in great number acting with little correlation. These are generally unable to prevent alternate flooding and undersupplying of markets and hence can do little to stabilize prices. Needless duplication leads to heavy expense and wide margins.

7. The integrated method is typified by such organizations as the California Fruit Growers' Exchange in which a series of local packing plants in pro-

ducing regions is connected with a series of distributors in consuming sections by means of their own comprehensive brokerage system or central exchange. Integration means consolidation and coöperation among locals accompanied by correlated movement of their products to market. Wherever existing agencies are efficient they are used, but where improvement is possible by substitution of new middlemen this is done.

8. Under competitive conditions the integrated marketing method is generally superior in efficiency and operates with lower cost and higher profit earning power than the other methods.

9. Confusion of marketing methods with marketing agencies or either of these with essential services prevents clear thinking and hence constructive action in the field of marketing.

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CHAPTER XV

MARKETING AGENCIES AND THEIR SIGNIFICANCE

WITHOUT doubt the most important phase of the marketing problem so far as public interest is concerned centers in marketing agencies. No matter how necessary services may be or how efficient methods of rendering services may become, their benefits are not forthcoming except through the motivating force of a marketing agency. While improvements of many kinds are exceedingly desirable and must be introduced, there is no question that constructive development of the marketing of farm products hinges upon a balanced view of the daily quantity of work which marketing must do and the benefits flowing therefrom, in comparison with the further benefits to be acquired from possible improvements.

In discussing agencies it is perhaps well to recall that much so-called improvement has consisted of merely changing from one agency to another without in the least altering either the services performed or the methods employed. Inasmuch as the usefulness of each agency is affected by certain inherent elements of strength and of weakness their individual characteristics should be more generally understood. Otherwise the substitution of one agency for another, when no change of service or method is involved, may lead to destructive consequences as often as to improvement. It is quite possible also that opportunity to correct certain abuses or overcome deficiencies inherent in one agency may be overlooked unless the character of marketing agencies is clearly comprehended.

The Kinds of Marketing Agencies. — As set forth in Chapter II, there are three main groups of marketing agencies, known in the order of their present importance as private, coöperative, and governmental. Including their principal subdivisions a brief classification of marketing agencies follows:

MARKETING AGENCIES CLASSIFIED

I. Private Marketing Agency.
  1. Individual concern.
  2. Partnership.
  3. Corporation.
II. Coöperative Market Agency.
  1. Disconnected local unit.
  2. Centralized unit.
  3. Federated system of units.
III. Governmental Marketing Agency.
  1. Federal.
  2. State.
  3. County.
  4. Municipal.
  5. District.

All Agencies Have Equal Right to be in Business. — Contrary to the attitude of many, one kind of agency has just as much right to engage in the marketing of farm products as any other agency. All competitive enterprises whose expenses amount to less than the full difference between their buying and selling prices, in other words, their margin, earn profits, while those whose expenses total more than the margin necessarily lose money. Naturally continued loss of money leads to automatic elimination from business. The bitter opposition of certain agencies against others — particularly that of private against either coöperative or governmental effort — has been supported with arguments and propaganda to the effect that none but private initiative is entitled to render marketing services. It cannot be too strongly emphasized that farmers, consumers or any other group of individuals or enterprises are all alike entitled to

create coöperative agencies whenever further improvement in services or marketing method thereby may be brought about. Similarly if both private and coöperative agencies fail to contribute all that is desired, the public clearly has the right to require that appropriate governmental marketing agencies enter the field. At the outset in the discussion of these agencies it is well to set aside the general bias or wrong impression that any one agency more than others has a vested right or any other special privilege. All agencies rendering the same service by means of identical marketing methods ought to be regarded in every way as equals before the law.

Each Marketing Agency Has Definite Purpose. — While the fundamental services in marketing as well as the methods employed are usually identical for all the agencies, the real purposes for which these agencies enter the business field are radically different. In one way or another all are striving for either the highest profits or the maximum savings which competitive conditions and their relative knowledge and capacity permit. So far as competitive profits or savings of middlemen are concerned, both refer to the same thing in an economic sense.[1] They arise because the entire competitive margin is not consumed by expenses. The differences in purposes of these agencies are found not in the amount of profits or savings realized but in the effect which these profits or savings have upon supply and upon demand. In other words, the problem is this, "To whom do the profits acquired by marketing enterprises go?"

Purpose of Private Agency is Profit for Contributor of Capital. — Business conducted by private agencies is organized on the principle that essential marketing services are being rendered by concerns which differ extremely both in

[1] The least efficient middleman continuously engaged in a given line of business, gauges the price level.

their efficiency and therefore in their ratios of expense to profits. Each new enterprise in entering the competitive field assumes that it can obtain sufficient volume of business to keep expenses low enough to earn a profit from the established competitive margin. While many individuals would like to be middlemen for the sake of gaining profits, they are prevented from doing so because capital is lacking. The limiting factors so far as the number of middlemen entering business is concerned are (1) lack of capital, (2) lack of business ability, and (3) lack of business. When capable men propose a new company, then, capital is the first thing for them to acquire. (See Chapters IX, XII, and XIII.) To secure it necessitates the safeguards which have been set up by the incorporation and blue sky laws governing the raising of capital and the conduct of business ventures. In essence these laws provide that those who contribute their savings, in the form of capital for the use of business, shall have such control of the undertaking as will safeguard their investment and pay them profits obtained, as a reward for the important help which their capital provides.

In the private marketing agency, therefore, control of the business and ownership of the profits are vested in the owners of the capital required to finance the establishment of the enterprise. In other words, the purpose of the private agency is to utilize the constant public need for marketing services as a basis for earning money to be paid to those who have saved and invested a part of their income instead of spending it. It should be clearly realized that the profits of private marketing agencies are going to those who first saved and then invested their savings. That these concerns may be owned in part or wholly by consumers, or by farmers, or by middlemen, or by an indefinite number of each is unavoidable. In such cases profits are going to all classes of people in amounts proportionate to the quantity of savings invested.

The result of having enterprises whose ownership is obscured by size, diversity of investors, and above all, by extreme variation in the amount of capital held by separate individuals, is that profits may be going largely to some one of the three groups involved. A small group of consumers may be the recipient of most of the profits. Again it is conceivable that most of the profits may be flowing to middlemen or to farmers. In each case the incomes of certain individuals are increased without reference to the effect upon the production of raw material or the consumption of finished products. Under these conditions farmers who are interested in higher prices for certain commodities naturally clamor for a marketing agency which would so alter the distribution of profits as to make them appear unmistakably as an increase in price for raw materials. On the other hand, consumers, where organized, prefer that the marketing agency distribute profits in a manner which would represent unmistakably lower prices for their purchases. In contrast with these, the private agency as a general rule wants profits for itself regardless of whether the owners are made up of one only or of many classes. The critics of the marketing system calling for substitution of one agency for another, aim, therefore, to change the distribution of profits. In fact, most popular consideration of the subject is directed to this point and not at the question whether marketing services are essential or whether marketing methods are efficient.

Purpose of Coöperative Agency is Payment of Profits or Savings to Contributor of Business. — While the private marketing agency is regarded as operating in a field wholly apart from farming, the coöperative agency is regarded by the farmer as a necessary means of supplying him with marketing services rendered more completely to his advantage, and at costs reduced to a point that will force narrower margins than those now set by competition among private

agencies. The purpose of the coöperative agency is to render essential services according to the most efficient methods, the advantages gained thereby to be distributed chiefly to the contributors of the business, and not to the investors of capital. To provide the capital required for successful operation, the truly coöperative agency depends upon capital contributions from each member in proportion to the volume of business provided by each. Recognizing that saving must be stimulated, current rates of interest only are paid on capital. Thus the producers' coöperative agency represents a distinctly different purpose from the private agency. It is motivated by a desire to reduce competitive margins and to pay the highest possible proportion of the consumer's dollar to producers. The private agency, on the other hand, strives for profits which may be high only because competitive margins are unnecessarily wide, due to the fact that marketing services at present are rendered so largely by relatively inefficient middlemen.

Many present-day marketing problems are not being solved so far as public interest is concerned, not because private agencies lack ability to force improvement, but because a considerable part of present profits necessarily would have to be sacrificed voluntarily in order to eliminate all inefficient middlemen from business. Moreover their elimination would probably result in lower prices to consumers only without certainty of any immediate change of prices to farmers. Since consumers are not organized to force lower margins from their end of the line, as farmers are, the pressure for improvement by way of eliminating high cost concerns is not very effective. What the public, including both consumer and farmer, wants to have materialize out of its clamor for improved marketing is clearly a narrower margin between farmer and consumer prices. The machinery by which marketing expenses may be reduced, so that a lower margin covers

the costs of rendering essential services with profits or premiums to the more efficient, is also definitely known to be the integrated marketing method.

Because private agencies have been unwilling to sacrifice profits sufficiently to cause the integrated method to cover the whole marketing field, or have been unable to do so for financial or other reasons, the coöperative agency is widely heralded as a means of comprehensively integrating marketing as far as that may be done economically from the farmers' end. The realization of this purpose would no doubt mean the payment to farmers of whatever profits could be made out of the competitive margin in addition to current prices. Increased production would result, as it always does, in response to the stimulus of slightly or even appreciably higher prices. Temporarily increased production, if overdone, as is frequently the case, would lead to accumulation of surpluses that necessarily enable consumers to satisfy their wants at lower prices. Under conditions of increasing production, therefore, where all farmers who desire to farm are free to place their supply on the market, sooner or later prices are bound to become either stationary or falling to the extent that oversupply really occurs.

Public Has Confidence in Competition but Fears Monopoly. — The constant fear which the public has of any powerful marketing agency is that it may establish and maintain a monopoly whereby supply may be artificially limited by dictation of a few persons for price-making purposes, instead of having prices adjusted competitively as a result of conditions in which supply is determined by the individual judgments of a large number of farmers each producing or refraining from production because possibilities of profit are or are not stimulating. In this discussion of the aims of the coöperative agency, free competition is assumed to be the condition under which both production and consumption

take place. In other words, the benefits of price regulation through competition lie in the confidence on the part of all that no power whatsoever, other than the individual will of each farmer, is responsible for cultivation and harvesting of more or of fewer acres. Similarly on the consumer side, the benefits of competitive demand supposedly arise from the confidence that purchases are made from offering of a supply freely produced by farmers but made available in accordance with the full present and future needs throughout the consuming period. Under such circumstances the consumer, supposedly of his own free will, buys articles in accordance with his wants, limited only by his purchasing power. His money, however, is willingly paid for products only when the feeling prevails that commodities were bought from a supply that was freely produced by farmers and not from a supply artificially limited to a smaller amount by monopoly power for the purpose of causing increased margins through monopoly scarcity.

Competitive Benefits are Realized in Different Ways. — The public is fully warranted in fearing monopoly of any kind and is therefore justified in guarding against its creation or maintenance. It would be exceedingly unfortunate, however, for the public to demand and enforce a policy against monopoly which confuses monopoly with an urgently needed policy of applying scientific, economic principles to marketing, which alone can give the public the real benefits of so-called competitive supply and demand. Often large-scale distributing organizations, employing the integrated marketing method, and hence in a position to operate profitably with reduced margins, have been confused with monopolistic distributors. This confusion of competitive large-scale middlemen with monopoly leads the public to think that all who seek to build up large enterprises do so with the desire of gaining monopoly power. Monopoly power, however, is not

a reality until increased margins are created and profits thereby derived which result in no corresponding influence upon producers to stimulate increased production and delivery upon the consumers' market. A purely distributive organization, whether private, coöperative or governmental, is not monopolistic until it controls the whole situation fully enough to keep away from consumers what farmers have produced. To do this it must have power from its central office not only to put commands into effect actually causing at will either increased or decreased planting and harvest and greater or less total annual supply, but also power to prevent marketing of suitable proportions of the annual output during the consuming season to force high prices. This power must be exercised. No concern moving a freely produced supply to the extent that hold-over surplus is inadequate to break the next year's market, can be considered a monopoly. (To guard the reader against misunderstanding on this point, attention is invited to Chapter XVII.) Organization of this kind may, however, apply scientific economic principles for two worthy purposes. First, it may prevent glutting and starving, or over and under feeding, of any markets and thereby stabilize conditions and prices. Second, it may, as numerous examples of coöperative federations indicate, transmit a higher proportion of what the consumer pays to the farmer, with the eventual possibility of lowering prices to consumers without those unfortunate price reductions to farmers that cause decreased production.

Objects of Coöperative and cf Private Agencies Compared. — The distinctive character of the coöperative marketing agency lies in the fact that it is motivated by a desire to reduce margins over the field of operations which it succeeds in integrating, and to give the coöperators the benefit of reduced costs and margins. If accomplished, it means to farmers definitely increased prices for a time but just as certainly

reduced prices if oversupply is brought about. It means the closer adjustment of production by the farmer to meet the need of consumers. With the private agency, on the contrary, no matter how faithfully scientific ideas are applied in marketing, change in the margin cannot be realized until two almost insurmountable obstacles have been overcome. Lower prices to consumers cannot accompany higher prices to farmers until (1) the range in competitive efficiency of private middlemen has been reduced appreciably and to the point where (2) unrestricted profits on the part of the most efficient middlemen have been reduced by narrowing competitive margins to more nearly nominal rates of profit. It is not likely that this will be realized within reasonable time through the initiative of the private agencies themselves, although it is possible. For this reason the hope of the coöperative agency is to introduce that degree of increasingly intensified competition with efficient private agencies which will eliminate the inefficient middlemen. Thus, necessary wide margins would be reduced and the profits of private competitors lessened by sharing them jointly between higher prices to farmers and lower prices to consumers. In the last analysis the coöperative agency in the hands of farmers strives to reduce margins and increase prices to farmers, while in the hands of consumers it reduces margins and lowers prices to consumers. The private agency, on the contrary, strives to maintain margins so far as competition permits in order that profits to the efficient may be made as high as possible. Reduced margins cannot be expected except as competition is made effective by the elimination of the less efficient middlemen whose services are rendered only at high cost and wide margins.

Purpose of Governmental Marketing Agency. — Under a democratic government the purpose of a governmental marketing agency is unquestionably to render the essential mar-

keting services according to superior marketing methods which either private or coöperative agencies may not be depended upon to employ. Because the government, representing all the people, is supported by taxes and has the authority to enforce its dictates within the bounds of political expediency, it is thought that far-reaching improvements may be initiated by government middlemen which might greatly reduce the margins between farmers and consumers. All that has been said of private or coöperative agencies applies here with equal force, for the reason that the government may purpose to make profits either through monopoly power or through the width of competitive margins, or it may purpose to operate without profit and hence effectively narrow the margin. Theoretically, government may do anything that other agencies might do. Practically, political expediency, the limitations imposed by civil service, and political instability must inevitably interfere with the development of business efficiency by any governmental marketing agency as long as present conditions persist. Inevitably the accomplishments of a governmental marketing agency must be recognized as varying according to the "will-o'-the-wisp" of changing politics.

Each Marketing Agency has Inherent Weak and Strong Points. — Each of the marketing agencies is limited in certain respects by serious inherent weaknesses. Happily the strong point of one serves as a check against the weak point of another. These weaknesses are found in connection either with the motives or the purposes of each agency or with the degree in which the essentials of marketing business success (noted in Chapters XII and XIII) are appreciated and practiced. For the most part the weak points of the marketing agencies may be summarized as follows:

Weak Points of the Private Marketing Agency

1. The field of marketing is subdivided far too much by entrance into business of needless numbers of new middlemen reducing the volume of products per undertaking and increasing costs and margins.
2. Payment of flat buying price to farmers places premium on low instead of high quality products.
3. Necessity of playing safe in the purchase of seasonal surplus supply for later use results in failure to stabilize prices as far as this could be done.
4. Motive for private profit causes intense suspicion on the part of both farmers and consumers.

Weak Points of the Coöperative Marketing Agency

1. Frequency of failure to employ capable managers and otherwise to insure efficient management.
2. Control by less informed majority seriously limits scope and efficiency of operations.

Weak Points of the Governmental Marketing Agency

1. Business essentials displaced by political domination.
2. Disinclination or failure to offer adequate premiums to stimulate individual initiative and application.
3. Tendency to inefficiency and rising costs prohibits reduction of margin.
4. Certainty of political reversal when the unreasonable and high expectations of the public are not realized. The problem of changing majorities accompanied by reversal of business policy.

In contrast with these weak points the outstanding elements of strength for each agency are summarized in the following manner:

Strong Points of the Private Marketing Agency

1. Places premium effectively upon individual initiative and application.
2. Generally secures and stimulates capable managers.
3. Discovers and utilizes practical methods of cost reduction for sake of increasing profit from a given margin.

Strong Points of the Coöperative Marketing Agency

1. Has the possibility, if efficient, of reducing the width of competitive margins.
2. Places premium on high quality, thereby stimulating greater output of what consumer wants.

3. Promotes confidence between middleman and farmer or middleman and consumer or both, depending upon the extent of integration and whether it commences with farmer or consumer, or covers the entire distance between them.

STRONG POINTS OF THE GOVERNMENTAL AGENCY

1. Authority to cause consolidation of inefficient units and rapidly to introduce integration for the purpose of comprehensive and coördinated action.

2. Present and future needs for comprehensive marketing facilities such as terminals, and other investments of great permanency may be wisely and efficiently planned and constructed because of the indeterminate character and continuity of the state's existence.

Constructive Changes Call for Best Characteristics of Each Agency. — The varied elements of strength in each marketing agency, together with their different weak points, suggest only too strongly that mere wholesale or blind substitution of one agency for another cannot bring improvement in the marketing system. This would mean the discarding of one weakness only to install another. Improvements are likely to be made only by careful selection of one agency having the particular element of strength necessary to offset the weakness inherent in another agency. Thus, for example, the competition of an efficient coöperative agency, with its inevitable tendency to reduce margins, is the best competitor with the efficient private agency, capable of making a profit from a narrower margin, but which is bound to strive for the widest margin that competition permits it to earn. The public has overlooked the inherent safety against monopoly which wisely promoted diversity of marketing agencies would insure. What is needed is maximum efficiency in the performance of essential marketing services at the expense to the public of minimum margins. In the hope of preventing monopoly many purely competitive large-scale private as well as coöperative distributors may be ruled out. To prohibit integration, in the hope of preventing monopoly, when the more constructive opportunity is available of installing pow-

erful coöperative agencies with integrated systems to compete effectively with equally efficient private agencies having integrated systems, is a direct blow to the public interest. Such a shortsighted policy, if enforced, would deprive the consumer of adequate supply because it would prevent marketing machinery from operating on margins low enough to give the farmer a sufficiently stimulating share of the consumer's dollar.

That the public conception of the marketing system fails to recognize these fundamental principles is the great danger of the present time. To avoid destructive changes during a period when constructive action is so urgently needed, calls for greater public recognition of the urgent need for widespread dissemination of the economic facts and principles underlying the marketing problem.

SUMMARY

1. Marketing is undertaken by each of three distinct types of agencies. These are private, coöperative, and governmental.

2. Each of these marketing agencies has an equal right to engage in business. Each also should be accorded similar recognition and treatment by the law where similar services are rendered by means of similar methods.

3. The objects of marketing agencies differ greatly. The private agency is primarily interested in marketing to develop the means of rendering services as a secondary consideration to the making of profits upon capital invested. The coöperative agency is primarily concerned with the development of facilities to render marketing services in the interests of farmers at minimum cost and regards earnings above competitive prices as a matter of secondary importance. The governmental marketing agency is interested in whatever phase of marketing happens to be the "pet notion" of the dominant class in government at the time.

4. The public rightfully fears monopoly power and for self-protection must prevent conditions giving rise to it. The public has great confidence in competition as a means of regulating prices or of making fair prices. Without knowing how to explain why competition should result in fair prices, the public becomes suspicious of anything which grows large enough to look like monopoly. As a consequence not only private but even coöperative organizations, in instances where both are strictly competitive in their influence upon prices, are incorrectly regarded as monopolies. This is unfortunate because

it prevents the application of scientific principles to the marketing of farm products in the interests of both farmers and consumers.

5. Each marketing agency has weak as well as strong points. In a scheme of marketing designed to render necessary services at the lowest possible cost to the public, the strong points of all of the agencies employed are required. An effective policy of promoting efficiency among middlemen calls for the kind of competition which a strong private middleman with the integrated method would have to meet from an equally strong coöperative middleman with an integrated system. The coöperative idea working to reduce margins is the real competitor of the private idea working to get the benefit of a wide margin. Competition of the future must pit the active ideas of business against each other rather than to expect favorable results from conditions in which competition must more and more become superficial only.

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CHAPTER XVI

THE MARKET AND PRICE MAKING

THERE are many kinds of markets and as many kinds of prices. Their seemingly endless variety and the confusion resulting from this multiplicity is a prolific source of misunderstanding and antagonism. Both markets and prices are instruments of economic service which have definite accomplishments to bring about. Yet the real work to which they contribute is little, if at all, appreciated or comprehended by the masses of farmers and consumers. Price itself means merely the rates at which goods or services are exchanged for money. It refers to the number of pounds or other units of a commodity transferred at a particular time from one owner to a new owner for a definite number of dollars or cents. Price of a given transaction is significant to others than buyer and seller only because it indicates relations between a whole series of economic forces working at the time for increased supply and reduced consumption or for reduced supply and increased consumption.

Must Distinguish between Normal and War Price Levels. — At the outset the following discussion should be guarded by two explanations. One relates to the confusion of the level of war prices with the marketing problem, the other to the fact that many people undertake to produce commodities on land so poor that a price high enough to meet the cost of production and pay a profit is absolutely impossible. It should be evident to all that the level of normal prices and the level of war prices are two distinct things for

very definite reasons. In normal times farmers and others produce for a comparatively stable consumer demand. The rate of production is adjusted to the rate of consumption by slightly changing price levels from year to year. When war suddenly casts its burden on a nation the task of production is changed. In addition to the normal productive requirements to meet normal needs of consumers the task of producing the materials for war becomes an added duty. It constitutes a sudden new demand of gigantic proportions which can be adequately met only by the offering of high prices for labor, equipment, and materials by the party engaged in war, namely, the government. But this rise in prices and wages gives rise to income and net profits all of which must contribute their share in the long run to the payment of war costs.

Those producing products to sell like the farmer inevitably at first receive rising prices on commodities costing little and later face falling prices for commodities costing much. Much of the extra income of the early years of war they must later lose through the process of readjustment backward to pre-war price levels. This is one of the costs of war. The great drop in prices of farm products during 1920 to 1921 was due to the war and not the marketing system. Unfortunately, the movement back to pre-war prices came for farm products more rapidly than anticipated because Europe could not buy the surplus of American agriculture.[1] No fact of recent years illustrates more forcefully than this that the nations of the world must either "hang together or hang separately." Conditions which strip a nation of purchasers of its buying power must also rob a nation of sellers of its formerly profitable market. To this fact farmers and consumers should lay the blame of 1920 to 1921 price tendencies rather than to the marketing system.

[1] Taylor, A. E., Credits for Export, *Saturday Evening Post*, Vol. 193, No. 33, pp. 34–35.

Normal Price Level Justifies Farming of Better Lands Only. — In normal times a potent cause of dissatisfaction with the price level is the use of land wholly unfit for economic production at any prices which consumers would be willing to pay. This sort of land is known to the economist as sub-marginal, meaning that from its use farmers cannot obtain an income large enough to pay expenses. As long as such land as this is farmed it is inevitable that people should rail against prices. The cause of this evil, however, is not to be found in the marketing system but in the fact that people insist upon farming land the use of which is not justified by normal price levels.[1]

Influence of Price upon the Consumer under Normal Conditions. — Before examining markets and prices themselves there are certain inevitable tendencies of both buyers and sellers in response to changing price levels and to fluctuations characteristic of all markets. These tendencies of buyers and sellers inevitably set the limits to competitive prices reached at markets. The consumer is the starting point in price making since all production is undertaken to satisfy consumer wants. These wants become effective demands for production to the extent that a premium is offered, meaning the probability of profit above costs for the farmer. "What will the consumer do?" is always the question of both farmers and middlemen, for it is from the consumer's dollar that funds must come to pay expenses of production by farmers and middlemen and give profits to stimulate their efforts in creating what consumers want. Abundant investigation and analysis have shown that consumers differ greatly in their economic purchasing power and that different price levels normally cause a larger or smaller quantity of commodities to be bought by them. The reasons for this are not

[1] Ely, R. T., *Foundation of Agricultural Prosperity*, Address, Annual Convention Farm Mortgage Bankers Association of America, Kansas City, Mo., Sept. 16, 1920, pp. 5–6; see also *Outlines of Land Economics*, soon to appear, published by the Macmillan Company.

at all hard to find. The majority of consumers receive in normal times an income large enough barely to meet their needs for food, clothing, shelter, and meager education. Naturally they cannot pay more for one item without being forced, by their limited incomes, to pay less for something else of importance to their existence. Thus under usual conditions the ability of consumers to pay results in balanced production of the necessities of life in response to the fixed price levels that prevail. So long as prices for the different commodities in the list of daily necessities stay in normal balance with each other, consumers quite unconsciously continue purchases steadily.

When for any reason the price upon a necessity of life or other commodity rises out of proportion to increasing wages, the majority of consumers find it necessary to curtail purchases in order to live within their incomes. Thus the influence of prices high in proportion to wages in normal times is to curtail consumption by the masses of consumers receiving the lower incomes. Those fortunate enough to receive incomes larger than the average tend to continue the buying of accustomed quantities of goods in spite of the higher prices. In fact, the prices of some goods rise out of proportion to other articles of which there is unusual scarcity because consumers able to pay guarantee themselves the usual supply by bidding prices at which the masses of consumers can no longer continue normal purchases. The influence of high price upon the mass of consumers, under conditions otherwise normal, is therefore clearly to check or reduce consumption. Conversely, consumption is encouraged or promoted when price falls below normal.

Under normal conditions of free competitive production farmers endeavor to do that which will reward them with the highest profits. Generally a balance in price is reached under these normal conditions which stimulates the produc-

tion of about the right quantity of each kind of farm products. This is the case because balanced prices to farmers mean relatively the same profits for their efforts whether devoted to the production of one commodity or another. But when the price of a given farm product rises out of line with the prices of other commodities indications point to increased profits by greater production of this article. Hence rising or high price for a given farm product promotes increased production of the commodity of which scarcity causes consumers to require increased supply.

Declining as well as low prices for a given product suggest to farmers that profit possibility from its production is smaller. Hence depressed prices check farm production and frequently oblige farmers to reduce expense by curtailing operations. This leads eventually to reduced supply of the commodity of which there was a temporary surplus permitting the low consumer-price. The farmer who follows the trend of market prices and knows approximately the various costs of producing each commodity on his own farm inevitably must endeavor to shift his efforts in production from the growing of the less profitable to the more profitable crops and live stock. Because farmers are constantly making these shifts in accordance with changing prices, the conclusion must be that high prices tend to increase the production of farm commodities, while low prices tend to reduce production.

Consumer Prices Requisition Farm Production. — When the marketing margin [1] is constant, every increase in price paid by consumers represents an increase in price to farmers. Fortunately, therefore, the scarcity of the given commodity, which causes consumers to bid higher prices, sets forces in motion which suggest higher profits to farmers and thereby stimulate them to overcome the shortage by increased pro-

[1] The marketing margin is the difference between the price paid by consumers and that received by farmers for a given product. It represents middlemen's expenses plus their profits.

duction. Similarly when commodities are produced in excess of consumer demands the surplus responsible for falling prices sets in motion a series of forces which suggest lower profits and even losses to farmers which compel them to reduce expenses. This is done by curtailing production in the unprofitable line and shifting to another line of farming that promises greater reward. They must either do this or face bankruptcy. Thus, in the economic adjustment of changing supply to varying demand, at one time consumers are driven to enforced reduction of consumption while at another time farmers are compelled to practice reduced production. At other times normal conditions permit unhindered consumption and production, while now and then unusual purchasing power stimulates both increased consumption and rapidly rising production. In any event, the maximum economic production for the time is promoted when the highest possible proportion of the consumer's dollar reaches the farmer and this occurs only when marketing services have been rendered at the lowest possible expense.

How the Marketing Margin Affects Consumption and Production. — If the entire dollar paid by consumers were suddenly transmitted to farmers there is no question what would happen. Production temporarily at least would be increased greatly, just as was the case when war prices enlarged the incomes of farmers. This impetus to unbalanced production, however, would be disastrous to farmers, were they to forget that a limit exists to the quantity of any one kind of products which a fixed population at a given time will purchase at former prices. In other words, if there is in normal times a balance between the amount of goods which people will buy at certain prices and the quantity which farmers will produce in response to these prices, increased production necessarily would enable consumers to obtain their accustomed supply for less money than formerly and

prices would fall. It must not be thought for a moment that elimination of the full margin between consumer and farmer would permanently give farmers the full amount of the marketing margin on top of former prices. On the contrary, the first rise in price would cause increased supply which would eventually cause a surplus and consequent price adjustment to a lower level. Thus, price would exert its fundamental influence as a requisition for greater or for lower supply and a new balance would be reached between the amount desired by consumers at a given price and the quantity which farmers would produce in response to that price.

The marketing margin, in other words, the difference between buying and selling prices for middlemen or the difference between farmer and consumer prices, is necessary under the commercial system. This is the case because consumers and farmers, specializing in their respective lines of production, quite insist in practice, if not in thinking, upon receiving marketing services from middlemen, instead of themselves rendering these services. When confined to the minimum width consistent with efficient rendering of marketing services the margin of course promotes both the welfare of farmers and consumers because it provides what each wants. That it should be as narrow as possible goes without saying, unless one would care to argue that consumers should be forced to pay more than is necessary or that farmers should be paid prices which would reduce production to a point where consumer needs could not be satisfied. It is obvious that a marketing margin of greater width than is required to meet expenses of middlemen and to give a premium or reward sufficient to insure efficient rendering of essential marketing services is against the public welfare. Unnecessarily wide margins work hardship upon the consumer by causing scarcity of goods and reduce opportunity for farmers by checking and reducing profits and hence blocking greater production.

Any inquiry concerning markets and prices must recognize these fundamental economic consequences of price changes and of the width of marketing margins. Much popular confusion arises from misunderstandings of these forces and from oversight of the necessity for them to function in the commercial system.

Why Prices Present Complexity and Confusion. — Under the simplest conditions of marketing, where a farmer exchanges his commodity with a consumer for money at a definite figure in terms of dollars or cents, there is but one price for both consumer and farmer. In this case the problem of arriving at a fair price is not complicated by the necessity of compensating some third party, as a middleman for his services. It was demonstrated in Chapters X and XI that consumers and farmers do not and cannot make direct exchanges of this kind, but that middlemen must provide essential marketing services. The expense of rendering each necessary service, therefore, justifies a margin of more or less width, depending upon how much it costs the least efficient middleman persisting in business to render it. Rendering of these specialized services in varying combinations by middlemen has resulted in so-called steps in the marketing system. Of these there are from three to seven or more. Every step has its kind of middleman, as the elevator man, wholesaler, or retailer, each of whom must have a margin or difference between buying and selling prices. Ordinarily, the middlemen operating on each important step in the system perform from one to many of the essential services. Under competitive conditions the margin obtained is measured by the combined costs of rendering these services by the least efficient concerns staying in business upon each step. All of these different middleman-margins combined constitute the total margin between consumers and farmers.

Prices are numerous because this total margin is broken

into smaller margins necessitated by the many types of middlemen, each doing a few special things. Were a single middleman handling products between farmers and consumers, only two prices would be necessary, one a transfer or buying price from farmers, the other transfer or selling price to consumers. Each additional middleman after the first, by adding another change in ownership of the product, makes necessary another price quotation. This sets the width of his margin and as it were carves it out of the total margin. These margins after all are merely the differences between successive buying. and selling prices. Without definite facts and proper interpretation of them great confusion is almost certain because of the numerous kinds of middlemen, the variety and qualities of raw materials and of finished products, and because the quotation may be either the buying price of a middleman or his selling price. That the consumer and farmer generally have had neither correct price facts nor correct interpretations of them is the principal cause for confusion and misunderstanding about prices. Public welfare demands that both of these classes acquire all facts and interpretations essential to a clear understanding of markets and prices.

Prices are the Outgrowth of Confidence in Supply and Demand Facts. — Price is made by reaching a common agreement through competitive bargaining concerning the value at which commodities are to be transferred at a specific time. Of itself, then, price is purely a resultant for the particular buyer and seller making the transactions. The real problem in price making is to determine the true relation between supply and demand, both present and prospective, which alone makes possible common agreement as to what the price shall be. No phase of marketing presents more complications than this. All commercial intercourse stands still until deliberations concerning the conditions of supply and demand

bring about common understandings and prices in which all participants feel confidence.

Where Confidence is Created and Prices Determined. — Actual price agreement reached through competitive bargaining depends upon the realization of two things. First, mutual confidence of buyer and seller must be established concerning the kind, variety, quality, and quantity of the product itself, and second, mutual confidence must be created concerning the relation of present and prospective supply to current and future demand. Transactions are possible whenever these requirements are met. All conditions influencing people in establishing confidence of these two kinds constitute the market. Most important among these conditions affecting the market and price making are: (1) personal intelligence and judgment of buyers and seller; (2) adequacy of supply and demand facts; (3) comprehension of the exact character of the product; (4) adequacy of facilities for communication; and (5) location of central point which buyers and sellers frequent in relation to the area over which commodities are produced and the distances between the former and the latter. The market may be strictly limited to a specific building in which certain products, because of their character, must be thoroughly inspected before purchase is made. Again it may be country-wide, reaching wherever communication extends from seller to buyer, for those products which are so graded and standardized that they may be bought and sold safely on the basis of descriptions. The market is therefore vastly more a matter of the conditions which permit or facilitate the interchange of ideas and the gaining of confidence by sellers and buyers than the question of mere location. As a matter of fact, location is no longer of much importance except for such products as require complete inspection, and in a limited way for those which must be sampled, before purchase is possible.

Conditions that Prevent the Making of Ideal Prices. — The problem of supreme interest to both farmers and consumers is whether supply and demand facts become known completely enough to create such confidence between buyers and sellers that a price may be reached which will enable farmers to produce as much as consumers need and will pay for. To accomplish this fundamental purpose with the least fluctuation in prices, yet with the result of completely marketing during the consuming period all of a freely produced supply, requires dependable supply and demand information on a country-wide basis.

If the reader will imagine for the moment an ideal condition in which all farmers are united through a series of local commodity producers' organizations with one central exchange responsible for spreading the total supply over all of the consuming regions, it will be understood how comparatively simple the task in this case of gaining full supply and demand facts would be. Having connections with virtually all farmers growing the product, on the one hand, and all consumers utilizing the commodity, on the other hand, it would be relatively easy to arrive at prices which would adjust the total of freely produced supply to the entire consumer demand until the next harvest.

Under practical conditions as they are now this ideal situation is far from realized, and that for two obvious reasons as well as for many others more obscure. First, farmers are by no means united on the commodity basis into local assembling units properly federated under one central exchange. Thus a relatively accurate measure of supply on hand and of prospective supply from the coming crop is not available to any one comprehensive exchange. Instead information of this sort is being obtained by those whose size and efficiency enable them to gain more reliable facts than their competitors. Thus, supply information becomes part of the business assets

of the more efficient concerns, while the bulk of smaller and less efficient middlemen grope about in the dark doing their buying and selling largely by guess.

Second, consumers are not united on the variety basis into local retail units properly federated under one comprehensive wholesale system. Hence adequate and dependable information regarding both current and prospective demand is not being gathered by any single organization where it might be compared with equally accurate supply information. Instead, consumers are dealing with vast numbers of exceedingly small and for the most part, relatively unintelligent and inefficient private retailers who are the farthest possible from federating into an organization capable of measuring demand correctly. The most efficient retailers ascertain demand facts as far as possible and use them as a means of meeting competition from the less informed retailers whose inability to gain these facts comprehensively obliges them to operate in a purely *hit-or-miss*, *hand-to-mouth* manner.

Under present conditions the mass of commodities is produced and consumed in response to prices which cannot be reached on a scientific basis because the machinery does not exist for obtaining sufficiently accurate supply and demand facts. As a result, the misfortunes attending alternating short supply or oversupply in the form of excessive consumer prices or of depressed prices to farmers are unavoidable until greater coördination is worked out among local middlemen on both consumer and farmer ends of the marketing system.

In the mean time, efforts have been made by groups of different kinds of middlemen handling various commodities to bring order out of chaos by the establishment of clearing houses for information and trade relations, or, in other words, to provide trade and commodity exchanges. Thus the various "boards" for specific products as butter, cheese, grain, cotton and other commodities are the nearest approximation

to scientific gathering and analysis of supply and demand facts which present competitive conditions among private agencies and legal restrictions will permit. That buyers and sellers on these exchanges and everywhere else are obliged to guess at what the price should be is proof of the relative inadequacy of present means for collecting and analyzing supply and demand facts. In the absence of facts complete enough to permit the calculation of prices there is no other alternative but to guess what they should be. It is this physical limitation to the acquisition of definite, dependable facts, inherent in the existing competitive situation, which compels middlemen, and all others who would buy and sell, to speculate or guess as a means of reaching a common understanding of what the price should be.

Price Making under Present Conditions. — Under existing standards and facilities of competition the majority of middlemen are not comprehensively connected for the uninterrupted interchange of supply and demand facts, hence they must act largely in the dark without that degree of correlation which is essential to greatest nicety in the adjustment of changing supply to variable demand. Mistaken judgment under these circumstances necessitates wider margins than might otherwise be necessary in order to cover losses involved. This is recognized by middlemen to the extent that trade organizations are formed and exchanges maintained by them to facilitate the interchange of judgment and of products. Thus there are markets varying in their sphere of influence all the way from small and more or less disconnected local affairs representing each kind of middlemen at the local point to immense markets covering in their sphere of influence whole states, groups of states, and for certain products, groups of nations. The sphere of influence of a given market may therefore cover any area over which common understandings may be reached. The only important limitations

to the area of the market are (1) character of the products, and (2) monopoly power.

How Character of Products Limits Area of the Market. — Farm products are of three kinds so far as their salable characteristics are concerned. They fall into classes requiring either (1) inspection, (2) sampling, or (3) description before sale is possible. The first group of commodities represented by vegetables, potatoes, and live stock, is of such a nature that as yet no uniform and dependable system of grading and standardizing has been devised. Consequently, most buyers must inspect the products themselves before they will attempt to make purchases or arrange the terms of sale. For this type of farm products the area of the market is directly limited by (1) the area across which buyers may travel without prohibitive expense to points where commodity inspection can be made, or (2) the area across which buyers are able to deal satisfactorily with agents or representatives upon whom the responsibility of reliable inspection then falls. In general, the necessity for physical inspection of commodities decidedly restricts the area of a given market. Consequently, for this class of commodities, there are great numbers of small markets. Unless all are constantly informed of supply and demand as these forces demonstrate themselves on each local market there must be wide differences in price for the same product in different sections. This is the case because neither production nor consumption are uniformly spread over the country. Furthermore seasonal surplus added to territorial surplus inevitably results in glutted or undersupplied markets unless all markets are enabled to function in proper correlation. For these reasons farm products which require physical inspection before sale cause restriction in the area of markets, lead to endless numbers of small markets and make more difficult the determination of facts which are essential both to price making and its complement, market feeding.

The second group of products includes any ungraded, non-standardized articles, such as wool, cotton, grain, and other goods, but which may be accurately sampled. The area of markets for these products is wider to the extent that samples may be transported satisfactorily to buyers at less expense than would be necessary for buyers to come to the commodity for purposes of inspection. Furthermore, wherever determination of the characteristics of the product may be made by sample rather than by physical inspection of the entire prospective purchase the costs are very much reduced. Every reduction in expense increases profit-earning power to individual middlemen, a fact indicating possibility of paying more favorable prices to farmers whenever the weakest competitor makes similar reduction in his costs.

The third group of products, typified by any rigidly graded and highly standardized commodity, like Sunkist Oranges, Sunsweet Prunes, Sun Maid Raisins, Eatmor Cranberries, and the numerous pork products well known on all markets by their specific names, is satisfactorily sold on the basis of descriptions only. Thus, in the process of arriving at common understanding concerning the character of the products and th condition of their supply and demand, buyers and sellers of these commodities are able to eliminate the cost of travel or of transporting commodities or samples. Moreover, the delay in time required to effect transportation is also prevented. In fact, the entire transaction is simplified and both time and money saved because the character of products and the necessary facts may all be determined satisfactorily by means of communication by telephone, telegram or mail. For this class of farm products the area of the market is virtually unlimited. As a consequence, prices may be adjusted to the greatest nicety and market feeding conducted in a manner to promote stability to the fullest extent throughout the complete cycle of production and consumption.

How Monopoly Power Limits the Area of the Market. — Monopoly with reference to farm products definitely means the regulation either of the quantity of commodities produced or of the proportion of those produced which shall be marketed during the period from one harvest to another. Monopoly does not exist so long as the whole of a freely produced supply is placed on the markets of the country within the producing and consuming cycle at prices which result in consumers taking all but the normal holdover. Ordinarily, there is a small quantity of almost any kind of commodity held in reserve during the period immediately preceding the arrival on the market of commodities from the new crop.

For many products this small or normal surplus is a necessary factor of safety to insure consumers against a shortage that would mean starvation. In countries like China where this small surplus is not accumulated and held in reserve against misfortune by delayed harvests or other temporary conditions great suffering is experienced. Witness the starvation in China of millions of people in the winter of 1920–21, for example. Consider also Mexico's plight at different times because of an improvident people faced with irregularity in harvesting and marketing. A reasonable holdover is necessary and may be defined as a quantity held over which under competitive conditions would not depress prices obtainable for the products of the next harvest. Prices which move all of a commodity freely produced by farmers without piling up a surplus large enough to depress prices in the next season are certainly competitive prices. On the other hand, prices which are maintained by marketing concerns by means of carrying into another crop year a great surplus from the past crop accompanied by curtailment of the next season's production to the extent of the surplus holdover in order to prevent price depression are probably monopolies. It is unlikely that marketing enterprises with such power as this over

both production and marketing are anything but complete monopolies. It cannot be denied that power of this kind is at times a potent factor on markets and prices, but it certainly is not common in connection with the markets and prices of farm products.

At this point it is well to emphasize the importance of clearly distinguishing between large or small scale competitive undertakings and large or small scale monopolies. It is a common error to regard any large undertaking or organization as a monopoly or as seeking to gain monopoly power while all small concerns are ignored on the ground that they could be nothing but competitive. To confuse size with monopoly, however, is a serious mistake. Some very small concerns are strictly monopolistic and secure exorbitant margins and profits, while other enterprises of great size are strictly competitive. Cases in point would be the little gas company in a small town, which is a true monopoly, and the large metropolitan department store, which is a truly competitive business. Often large-scale competitive enterprises are the only means of doing business on a smaller margin and hence are exactly what the public must have if its demand for lower prices to consumers and higher prices to farmers is to be satisfied. To confuse the large competitive middleman with the monopolistic middleman unfortunately leads to the destruction or hampering of the one essential to public welfare along with the other which is harmful to the public. The real differences between these types of concerns must be appreciated if the competitive concern is to be retained and only the monopolistic ruled out. These distinctions require correct judgment based upon facts showing the fundamental results of these organizations and not upon their superficial appearances.

If markets are classified according to characteristics which savor of monopoly or of competition perhaps these important

distinctions may be more readily grasped. Generally speaking, there are unorganized and organized markets. The former refers to conditions in which middlemen for lack of better arrangements are obliged to seek each other by personal visit or by communication to make buying and selling possible. It has long been appreciated by the more active and efficient men in the trade that each middleman must consume more time as well as money in following this *hit-or-miss* plan of buying and selling. Definite formal organizing of the market has been brought about in many places to reduce this unnecessary loss of time and expense. When there are organized markets, buyers and sellers, or in their place experts specializing as their agents, may at all times find others with whom business may be transacted. Obviously, the more easily and inexpensively, in terms of both time and money, buyers and sellers may meet or otherwise communicate to transact business, the more surely will it be possible to arrive at prices representing the minimum margin to middlemen.

Unfortunately, the usefulness of both unorganized and organized markets is limited at times by restrictions amounting to partial and even fairly complete monopoly.[1] Thus either few or many middlemen, operating on both organized and unorganized markets, may conspire among themselves and agree to practices which prevent truly competitive conditions. Where buying and selling is accomplished by private sale as in the case of live stock sold by farmers to local stock buyers, price agreement between a number of these private middlemen frequently has resulted in margins wholly unjustified either by terminal market prices or by marketing expenses. Farmers in these cases have imagined that prices were determined competitively as a result of one buyer bidding against

[1] See *Federation Guide*, Vol. I, No. 2, pp. 3–4; Wisconsin Division of Markets, *Market News Letter*, Vol. I, No. 28, p. 1.

another when in fact local conspiracy had eliminated all real competition of this sort. The quoting of different prices by buyers in these cases was merely "camouflage" to make the farmer think that he was selling on a free market. However, none of the buyers offered more than the stipulated maximum price. In other words, none bid prices that would in any way reduce the abnormally wide margin set by their agreement. This same sort of conspiracy among middlemen on some of the produce "boards" or exchanges of various kinds has been admitted by participants. Certainly the admissions by middlemen operating on the Plymouth (Wisconsin) Cheese Board, that high bids to sellers of cheese were refused and lower bids suggested and accepted which actually set the price, are proof that monopoly power is used at times in restricting the service which the truly competitive market renders. Considering all markets, however, monopoly action of this sort is rarely found.

Organized Markets Promote Freer Competition than the Unorganized. — Let it be emphasized at this point that conspiracy by middlemen, where organized markets do not exist, does not justify condemnation of the idea of the market itself. The object of condemnation should be those few unscrupulous middlemen who exercise their power in a really unprofessional manner counter to their responsibilities. For the same reasons organized markets are not the proper object for attack but rather those operating upon them who refuse to do business on proper standards. It should be appreciated that market organization provides the machinery by which all who buy and sell on the market are constrained to assume responsibility for maintaining the strictly competitive character that all markets must strive to safeguard. It has been amply demonstrated that organized markets generally have vastly increased the freedom of competition by the enforcement of rules which eliminate most of the unfair methods and

practices and expel those whose standards of doing business are reprehensible. This has been the general experience in all civilized countries. However, this does not mean for a moment that all of the abuses have been eliminated or that all men stooping to unfair and injurious practices have been expelled. To improve markets still further, those that are not organized but have sufficient volume of transactions must become organized. Those now formally organized need further rules supported by enforcement that will stamp out present and prospective abuses.

Market organization gives the farmer more keenly competitive markets by enabling him to find cash buyers at all times, an opportunity appreciated most by those older men who vividly recollect that their products were formerly difficult if not impossible to sell when cash was most urgently needed. By organization of markets to which all may come, especially those who must have cash and those who urgently require products, competition is increased by enabling parties of this kind over immense areas to meet or communicate with certainty, whereas without organized markets these contacts could be made, if at all, only with the greatest difficulty.

Both Restricted Market Area and Monopoly Tend to Depress Prices to Farmers. — From the preceding analysis it now may be evident that markets become restricted in usefulness either because (1) their sphere of influence is confined to a small local area, or (2) monopoly power is exercised to prevent freely produced supply from being offered or freely acting demand from being felt within the spheres of local and country-wide markets. Thus, for example, an abundant harvest within the area of a local market, cut off from other markets because of the lack of exchange connections, would inevitably cause great price depression because the surplus product resulting from the unusually large crop could not readily be sold upon some other disconnected local market

where drought had caused crop failure, extreme shortage and hence excessive prices. Unless each small local market is connected with large numbers of other local markets through an exchange system it is impossible for pric s to represent the status of country-wide supply and demand. This is the case because in the absence of exchange connections between local markets the surplus of one region causing low prices locally would not be realized in other places where local shortage is responsible for very high prices. When country-wide production is the means of meeting the needs of country-wide consumption, truly competitive results are impossible unless the conditions of supply and demand in each local market are known and their influence felt upon all other markets. In the absence of this sort of information the surplus of one region will remain there instead of flowing freely to other regions where shortage requires additional supply from outside sources.

When markets are unorganized information concerning local markets in one section is less readily transmitted to markets elsewhere and supply accordingly is less successfully spread over the consuming area. Hence resulting surpluses and shortages on different markets cause depressed and excessive prices which are the "ear-marks" of unsatisfactory market relations. As a rule where there are organized markets, supply and demand facts in each locality rapidly become known elsewhere and result in relatively uniform prices the country over, allowing only for differences in transportation costs. Where monopoly power becomes a factor within organized markets its restrictions prevent either (1) full transmission of essential market information, or (2) free offering of competitive supply or free bidding of competitive demand. Fluctuations in price daily, weekly, or during longer periods are bound to occur until machinery providing more efficient means of gaining complete supply and demand facts and of

making them more widely known is discovered and put into general use.

Entire Consuming Period Must Have Bearing on Current Price. — The element of time also has a most important bearing on truly competitive prices. When a product consumed throughout the year is harvested during a few months only or for that matter is produced in quantities representing surplus above consumption during some months followed by shortage below consumption in other months, prices at any one time are truly competitive only when all needs of consumption have been balanced against total supply. Most products are not produced weekly and monthly in the exact quantities consumed during these periods of time. Hence, surplus and shortage are the characteristic conditions upon most markets. This is the case except where relatively non-perishable products are being bought and sold on the basis of both cash and future prices or on guaranteed prices. As a consequence characteristic market conditions during a year include seasonal price depression followed by relatively high price later. Methods of causing the full claims of the entire consuming year to become a competitive factor on the market have not been invented or discovered for highly perishable goods, such as fresh vegetables, fruit, milk and similar articles. Hence surplus supply direct from the farms during flush producing seasons inevitably causes market flooding. As a consequence the seasonal fluctuation in prices of these products is vastly greater than for other farm products such as cotton, wheat, prunes, raisins, and similar commodities, for which organization has been devised. Both private and coöperative agencies in certain cases have instituted and maintain effective machinery through organization by which present and future needs for their products are compared with present and prospective supply as a basis for price-making. When this has been done most effectively, prices are the most sta-

bilized. In certain cases comprehensive coöperative marketing federations with central exchanges securing the most reliable supply and demand information obtainable for their products have undertaken to guarantee prices with the hope of stabilizing conditions throughout the marketing of their commodities. In quoting "opening prices" and in subsequently adjusting these prices to higher or lower levels these federations aim to accomplish the same results as those sought by disconnected private and coöperative middlemen in their so-called open competition to determine prices. The quoting of opening prices subject to readjustment up or down is the means by which federations offer their supply and accept bids through country-wide selling systems. By so doing they promote the very same kind of free competitive price as that reached by middlemen on either organized or unorganized public markets the country over. In each case the aim is to facilitate the determination of truly competitive prices by making it possible to consider the total annual production of the commodity in comparison with the complete consumer demand for the whole output during the entire period of consumption. That such organizations as the grain exchange or these coöperative federations do not give perfect satisfaction is not a good reason for abolishing them, in favor of going back to buying and selling on markets wholly unorganized. On the contrary, imperfections in the present organized markets should be overcome either by devising machinery within the existing system or by establishing alongside the present concerns new and superior organizations which may later grow to supplant them.[1]

It is perhaps well to caution that there is evidence on every hand of demagogues stirring farmers and consumers

[1] See reports of Grain Marketing Committee of Seventeen in *Prairie Farmer*, Vol. 93, No. 9, pp. 375, 386; *Wallace's Farmer*, Vol. 46, No. 8, p. 375; *Wisconsin Farmer*, Vol. L, No. 8, pp. 5–6. See also pamphlets of U. S. Grain Growers, inc., Farmers' Grain Marketing Committee of Seventeen, etc.

against the various coöperative federations and the exchanges for the purpose of feathering their own nests and of gaining political favor. As a general rule these clever misleaders of the public exaggerate the evils of necessary institutions ten or twenty times and advocate programs of action claiming for them results not one tenth of which could possibly be realized. That this is the case both for coöperative and private concerns alike has been amply demonstrated by the graveyard in every state of coöperative ventures wildly promoted and left to flounder on the rocks. It is proved by the constant efforts of business men to overcome slander and its damage to their legitimate efforts.

Why Prices are Made and What They Mean. — When the farmer consumed all that he produced in a self-sufficing system he was not bothered with the confusing question of prices, costs and profits. At present, however, the exchange of commodities is indispensable since most farm production is highly specialized and people other than the farmer are the principal consumers. This exchanging of products is accomplished by psychical forces which make values. The consumer's compromise with the retailer results in what is popularly called the consumer's dollar. It is the starting price from which all other prices are competitively calculated by the subtraction of a series of middlemen margins. Thus the retailer in the long run must conform his buying price to what he is able to obtain from the consumer. Similarly, each successive middleman whose services are required in the marketing of a given product, must either actively compete for supply or passively receive it by offering a buying price which leaves a sufficient margin between his buying and selling prices. Finally, the farmer receives what is left of the consumer's dollar after subtraction of the margins of the various competitive middlemen handling the product. The whole margin or difference between farmer and consumer prices is therefore

made up of a series of smaller margins representing the competitive share of each middleman whose services have aided in marketing. Thus the price which consumers will freely pay for the whole of a freely produced supply is the real starting-point in competitive marketing.

Competitive Marketing Differs from Monopoly Marketing. — Under a system of monopolized marketing the starting-point in price making is the demand of selected consumers, with unusual purchasing power. To select these consumers, of high purchasing ability, and to make them pay prices yielding monopoly profits requires power to control either production or marketing or both. It necessitates power so to regulate production or control distribution that the total annual volume reaching the consumer may be regulated in quantity to bring to the monopoly margins of excessive width providing profits that bear too little relation to costs of production under competitive conditions. Consumers are literally forced to pay a scarcity price, that scarcity having been deliberately planned and brought about to gain an excessive margin by arbitrarily exacting an unnecessarily high price from selected consumers. The secret of monopoly lies in the combination of control over the amount that will be produced as well as over the proportion that will be distributed, to insure this price and its high profits. Competitive marketing ceases at the point where the distributing organization gains that control over individual farmers which enables it to dictate how much shall be produced or to withhold from consumers during the cycle of production and consumption more than a normal holdover in order to compel payment of an excessive price seemingly justified by the semblance of artificially created scarcity when in reality actual large surplus has been accumulated. The significant differences between marketing monopolies and competitive marketing concerns depend entirely upon their respective influences upon production and consumption.

An enterprise which gets prices that widen the margin without giving the public the compensation of stimulated production through correspondingly increased profit to farmers is probably a monopoly. Monopoly tends to paralyze the reaction of changing consumer prices upon the adequacy of supply. In other words, excessive consumer prices are constantly the hope and result of monopoly. In sharp contrast, the hope and certain result of competition is a flexibility in the creation of supply regulated by the extent to which changing consumer price levels give profits that encourage or discourage output by individual farmers operating under conditions of free production.

Bargaining or Compromise is the Basis of Fair Price. — The ultimate test of real competition in marketing is whether the total freely produced supply has been made available over the whole consuming period in a manner to cause its complete sale to consumers at a fair price. By fair price is meant one which registers a return to farmers indicating whether too little, too much, or just the right quantity was produced to meet the total need or demand. At times in the past this result may have been accomplished without either middlemen or organization. Under present conditions of country-wide and world-wide production and consumption on a highly commercialized basis both middleman services and organization of middlemen are essential to the making of truly competitive prices. Organization, partially or completely integrating middlemen, may entirely wipe out the former inter-middleman competition between a series of individual concerns forming the newly correlated units of a given system without in the least preventing the free play of competition or bargaining between consumers and farmers. If such complete integration is permitted to develop, the question of guaranteeing the continuation of competitive prices hinges upon three things; viz.: first, the quantity produced

by farmers must not be limited in any way by other authority than the choice of individual farmers; second, the entire quantity produced freely by farmers whose number has not been limited in any manner must be transmitted to consumers and sold during the cycle of production and consumption;[1] third, the degree of operating efficiency must be maintained at a level or increased to a point where the total margin or difference between consumer and farmer prices, made up of the respective margins for each separate middleman or unit involved, does not exceed the actual costs of rendering necessary services efficiently plus profits or premiums in proportion to efficiency. This competitive premium or profit, representing the difference in costs between the most efficient and the least efficient middlemen of each kind required to do the work, when received by those only who are able to operate at lower cost than the poorest middleman, stimulates improvement. Fair price, one which works justice to all involved, is the resultant of forces operating freely to adjust supply to consumption or demand. The complexity of commercial life requires organization to make it possible for real competition to materialize and serve as the basis for compromises from which prices grow. In other words, organization is necessary under commercial conditions on a country-wide scale to guarantee unhampered competition in the making of prices.

The Methods of Price Making. — In the last analysis prices may be made according to three general methods: (1) calculation, (2) organized speculation, and (3) *hit-or-miss* guessing or chance juggling of market forces. Where sufficiently complete information on both supply and demand conditions is constantly obtained by an integrated marketing concern distributing a very high proportion of given product, it is en-

[1] The cycle of production and consumption refers to the period required to produce and harvest a crop and to such consumption as takes place normally from one harvest to the next

tirely practicable to calculate prices at which a single crop is likely to be sold and to guarantee buyers against declining or violently fluctuating prices. It is an utter disregard both of economic principle and of the welfare of farmers, consumers and middlemen to assume, however, without inquiry into its operation, that a calculated and guaranteed price of this sort as utilized by certain strictly competitive distributors works in restraint of trade and in other ways against the public interests. The consumer desires maximum supply available for purchases at the expense of minimum margins and at the lowest possible price consistent with production of the required quantity. To make this supply available under these conditions, all middlemen from farmer to consumer must push the handling of the commodity. This they will not do unless stability of prices is assured.[1]

Price Stability for Consuming Cycle Promotes Sales. — The necessity for price stabilization or some other means of insuring middlemen against loss has been emphasized by many whose business relations with the wholesale and retail trade enable them to speak with authority. The experience of the American Cranberry Exchange in this regard is clearly summarized in the following brief statement by Mr. A. U. Cheney, the general manager:

"The desired interest of the dealers can best be obtained by so controlling the distribution as to insure a stability of market and thus assure them reasonable profits. The smallest liability to loss and the greatest certainty of a moderate profit interest dealers more quickly and certainly than the possibility of large profits, coupled with the danger of serious losses. Dealers are often severely criticized for charging seemingly exorbitant profits on fresh fruits, but where there is a frequency or danger of violently fluctuating values such

[1] The California Walnut, p. 60; Report on Eatmor Cranberry Sales, Season 1918, p. 6; California Almond Growers' Exchange, pp. 4–5; Influence of Supply on Prices, Proceedings of the Second Pan-American Scientific Congress, Section III, Vol. III, p. 736.

apparently unreasonable margins are necessary for their protection."[1]

The experience of the California Walnut Growers' Association is further illuminating along this same line. After emphasizing the economy of utilizing the wholesale grocer and fruit jobber as a means of reaching retailers and through them, consumers, Mr. Webber, the secretary of this organization, states:

"To get the fullest coöperation of these distributors it was necessary to reasonably assure them that their walnut operations would return a profit. To do this it was necessary to eliminate the old condition of a serious drop in walnut prices occurring immediately after the holidays."

The chronic occurrence of price depression was overcome by a contract approved by the National Wholesale Grocers' Association stipulating among other things that the Walnut Growers' Association "should, at the beginning of its shipping season, name a season's price on each grade of its walnuts, such price to be fully guaranteed against its own decline for the succeeding eleven months. In other words, on any reduction in the opening prices the buyer was rebated accordingly on all stocks on hand." This arrangement is further praised as "one of the bulwarks of the industry."[2]

Guaranteed Price Rightly Administered Promotes Competition. — To say that a product produced in abundance but left to rot on the ground or in middleman warehouses brings competitive prices is neither in line with sound economics or sane business experience. Yet this must happen if coöperative relations are not instituted and maintained among the successive distributors whose services are necessary to the movement of the product. Protection, through stabilized flow of commodities, stabilized prices, or spreading of

[1] Report, Eatmor Cranberry Sales, Season 1918, p. 6.
[2] Webber, W. T., The California Walnut, p. 60.

risks,[1] is the essential object sought by these coöperative relations. Either these means of protection must be devised and supported by coöperation or wider margins must be taken to cover the losses incurred by price fluctuation.

Where the integrated method of marketing has federated local assemblers into a comprehensive distributing system, the highest form of competition is realized when the retailers of the country are enabled to receive their share of the total supply at tentative guaranteed prices which are subject to change through refunds in case consumers generally are found unable to take the whole supply at the original calculated price. Under such a plan farmers who contributed walnuts, for example, would not be selling their product at a cash price upon which an enormous margin was added by the power of monopoly to guarantee prices. On the contrary, they merely would be delivering their product to the retailer through an integrated system of distributing which would return them whatever price could be obtained from consumers for the whole crop. Their power to guarantee prices, instead of being due to monopoly, would clearly be due to the fact that farmers would accept a lower return than that first estimated as likely to result. Thus the *give-and-take* which is characteristic of competitive buying and selling, where farmer and consumer actually meet, is also developed where farmers through their own distributors place products with wholesalers and retailers on the basis of tentative prices guaranteeing acceptance of lower prices in the form of refunds in case the first price offered to consumers happened to be too high.

The possibility of guaranteeing prices in a manner which promotes competition and fair prices as just described de-

[1] Among private middlemen where the guaranteeing of prices against their own decline is not feasible, "hedging" on the future market is a common form of trade insurance. For discussions of this complicated problem and its value as a means of stabilizing marketing, see Weld, L. D. H., *The Marketing of Farm Products*, Chapters XV and XVI, pp. 317–361; *The Legitimate "Side" of the Board of Trade, Wallace's Farmer*, Vol. 46, No. 8, p. 347; Rose, Philip S., *Country Gentleman*, Dec. 18, 1920, pp. 6, 7 ff.

pends upon the ability of an organization to obtain virtually complete facts upon supply and demand and at the same time to distribute most of the commodity involved. Where the local assemblers as well as the large distributors are numerous and not integrated, calculated and guaranteed prices obviously are not feasible as a means of stabilizing either commodity flow or prices. Hence other means must be utilized if possible.

Prices Determined by Organized Speculation are Fairer than Prices Based on Pure Guessing. — It is utterly impossible for prices to be calculated and guaranteed against decline as explained above, in a complex marketing system including many types of middlemen, each group of which is subdivided into numerous disconnected units. For example, duplication suggested by the presence of five cotton buyers at one local point and ten wholesalers at a terminal point where in each case one or two would do the work more efficiently and cheaply, prevents the coördination and the gaining of facts required to administer guaranteed prices. This is the case because no one concern either obtains most of the supply and demand facts or handles most of the product. Consequently, if stability of competitive flow of products and of competitive prices is to be realized, it must be promoted by some other form of organization. Naturally, numerous middlemen, either private, coöperative, or both, are interested in facilitating their businesses either by stabilizing prices or by spreading risk, both of which largely eliminate the dangerous speculative [1] uncertainties of normal operations. Almost the only form of organization open to these middlemen is a trade association, a clearing-house association or some similar arrangement such as produce boards or grain and cotton exchanges.

[1] Speculation in marketing refers to all cases of postponing present sale with the hope of gaining more favorable prices in the future as well as to cases of premature immediate sale of commodities because of fear that cash prices in the future might be lower.

It is generally recognized that, where uncertainty exists because conditions are not fully known and the future may not be predicted, the judgments of many are much safer and therefore less speculative than the judgment of only a few. In the absence of market organization of any kind where middlemen are numerous and scattered, each is compelled to transact business on the judgment of a few persons only. Business conducted under these conditions, wherever noted in this or other countries, is compelled by lack of more adequate facts and more numerous judgments to be extremely speculative. So long as there is any uncertainty the most perfect price calculation devised for competitive marketing will be subject to some speculation. This is why the various managements of highly efficient coöperative distributing systems agree on certain principles in determining prices, clearly stated as follows by the California Almond Growers' Exchange.

"The latest information as to the foreign and domestic crops, as well as general market conditions, is fully discussed.

"The result is a price that in the opinion of all will move the crop promptly.

"It must be fully understood that the price named by the Exchange is the best estimate as to the value of the crop to be harvested. Later market, financial and foreign conditions may materially raise or lower that value."[1]

Speculation is merely reduced to the minimum where supply and demand facts are known fully enough to calculate prices in this manner. That it is not entirely eliminated is shown by the fact that movement of the crop depends upon whether consumers regard the opening price as fair, or as too high or too low. These conditions are met by subsequent price adjustments in the course of the consuming period.

On the more loosely organized exchanges any one may obtain service either by gaining a seat or by hiring service

[1] California Almond Growers' Exchange, p. 5.

through commissions or by other legal arrangement. On exchanges of this kind, price estimates are less definite and more fluctuating than those of the more prominent coöperative exchanges merely because supply and demand facts are less adequate and the responsibility for efficient marketing of products more widely scattered and less fully appreciated by these middlemen. Instead of promoting price fluctuation and wider margins in the handling of farm products, organized markets such as the grain and cotton exchanges are indispensable, until better organization is devised, as a means of enabling middlemen to keep speculation down to a minimum in the making of prices. Destroy these exchanges without providing a more satisfactory form of organization to minimize the dangers of speculation, and the country would turn back to conditions in which every middleman and other buyer or seller of products would have to depend upon his own judgment only, instead of upon the judgments of thousands, as a basis of determining what the price should be. This is no subject to be tossed about as a football of sentiment and prejudice. *The coolest and most critical analysis of what organization accomplishes in marketing and why it must be improved rather than destroyed is a matter in which every farmer, consumer, and middleman should take deep and thoughtful interest.* All buying, selling, producing, and consuming is subject to more or less speculation. This is a condition of human existence. The idea that "in numbers there is safety" has a counterpart in price making in the statement, by organization there is less danger in speculation. The more perfect organization becomes in marketing, provided that safeguards to insure competition are maintained, the more completely the evils of speculation may be eliminated. Conversely, the less organization is promoted and improved and the more completely it is hindered or eliminated the more surely speculation will be increased as a basis of price determination.

SUMMARY

1. Consumers normally economize when prices are relatively high and increase consumption when prices are relatively low. Changes in price levels either encourage or discourage consumption and hence react upon production.

2. Farmers produce little or much in response to the relative possibilities of profit suggested by prices for different products. In general, high prices for farm commodities mean increasing profits which stimulate increased production. Falling prices or low prices tend to reduce production to the extent that they mean declining profits.

3. In a very real sense prices paid by consumers requisition production by farmers. For this reason the first effect of greater efficiency in the marketing system, as demonstrated by various coöperative federations, is to increase production enormously. Saturated markets and stable or falling prices on the contrary bring expanding production to a standstill and even curtail it as demonstrated by conditions following the price declines of 1920.

4. The proportion of the consumer's dollar which goes to middlemen is not necessarily taken from the farmer. Both parties are necessary to the production of finished commodities in the hands of consumers. However, the narrower this marketing margin is, consistent with efficiency in rendering marketing services, and the higher the proportion of the consumer's dollar reaching the farmer, the more certain it is that farmers will produce adequately to meet the needs of the largest possible proportion of consumers.

5. Prices are made by buyer and seller after reaching satisfactory mutual understanding concerning conditions of supply and demand. No buyer likes to pay more than a competitor. Similarly no seller likes to receive less than others. Organized markets, where all facts available are utilized in reaching understandings and confidence about prices, stabilize prices by reducing uncertainties. Where information concerning supply and demand is the most complete, as is the case with certain coöperative federations or exchanges, prices are the most stabilized and abuses of speculation are greatly minimized.

6. Prices made under conditions prevailing on markets that are either flooded or where extreme scarcity prevails are not in any sense the kind of competitive prices in which both consumers and farmers have mutual confidence. On the contrary, prices made under these conditions may be just as oppressive to the farmer at one time and to the consumer at another, as are monopoly prices. Market conditions of this sort are the consequence of lack of organization. Remedy for undesirable market conditions is better organization and not the abolition of organization.

7. To guarantee strictly competitive prices for both farmers and consumers requires that the total supply be adjusted to the total demand for the entire cycle of production and consumption. Under highly commercialized conditions extending over immense areas this cannot be done without organization. The exchanges instituted by private middlemen have helped. They are

hardly as effective, however, as the more prominent coöperative federations or exchanges.

8. Since integrated marketing systems free from monopoly results look just like those which are strictly monopolies in both appearance and result, it is exceedingly important to distinguish between the two. This requires examination of the fundamental facts and results of the two instead of the superficial scrutiny that attends the usual investigation.

9. Fair prices are judged by the public as competitive prices because it is thought that the marketing margin is kept narrowest by competition. The fundamental consideration in the idea of competition, however, is that all who wish to produce freely in response to current price levels may do so and may also place their entire output upon the market. This result is realized fully as much when scientific integrated marketing systems distribute products as when numerous small duplicating concerns attempt the task.

10. Prices are determined in the last analysis by calculation, by organized speculation or by mere guessing. The first method is superior to the others but organizations do not exist for using this method for all products. Hence the other methods must be followed until organization is built up.

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CHAPTER XVII

WEAKNESSES IN THE PRESENT MARKETING SYSTEM

If marketing as a whole as now conducted were perfect in its operation and in its results alike for farmers, consumers, and middlemen, there would be little if any of the present agitation for improvement, and certainly middlemen no longer would find anything to be gained by further changes. Fortunately, progress in most lines of human endeavor is being brought about so constantly that a method, constituting the best way of doing things at one time, is likely to be less satisfactory at a later date. Numerous improvements discovered throughout the past and others constantly being found and utilized now are the cause of this overpowering tendency toward improvement through substitution of desirable for undesirable conditions.

The failures or weaknesses in this movement toward improvement in marketing are due to obstructions that hinder progress and keep old methods in use too long. Prejudice, the force of custom, lack of understanding and pure inertia on the part of all classes are responsible for this condition. As a result the essential marketing services performed in a commercial system by specialists, known as private, coöperative, or governmental middlemen, are not available to the farmer and consumer at lowest costs. The margin now taken by the marketing system is not the narrowest possible margin, namely, one just large enough to cover minimum costs and provide sufficiently stimulating profits. On the contrary, numerous inefficient middlemen continue in busi-

ness because the public has failed to realize that fewer middlemen could do this work more efficiently and cheaply.

What is the Test of Marketing Efficiency? — What shall be the measuring stick in determining the efficiency of the various marketing methods? The public needs some means of judging the merits of middlemen. Weaknesses or strong points of middlemen should be known to the public. These become evident only by comparison of the accomplishments of the less efficient with those of the more efficient concerns. Certainly mere size or volume of business is not an unmistakable sign of merit? In fact, there is no one key to efficiency. The danger of inefficiency lurks in oversize as much as undersize. Real efficiency lies in a proper balance, in that combination of expert management, volume of business and other essentials which permit the rendering of all necessary marketing services at minimum expense to the public. (See Chapters XII and XIII.) Under present conditions undoubtedly more concerns are inefficient because of undersize than because of oversize. Yet the marketing enterprise which has become so overdeveloped that expenses have grown to the point of necessitating excessively wide margins is more to be feared than those small enterprises which, because of undersize, incapable management, or any other hindrance, have not become efficient. Oversize accompanied by inefficiency represents financial power and organized opposition to improvement by large numbers of investors, features which are absent among small concerns equally inefficient but unorganized.

Weaknesses Arise Both from Too Little or Too Much Specialization. — The problem of bringing about more efficient marketing involves two questions: first, what and how much work is there to be done? and, second, how may this volume of work be accomplished with the lowest expense and the greatest service to the public? It is certain that each

farmer cannot render for himself the various essential marketing services as cheaply as they can be performed by either coöperative or private middlemen. In other words, division of labor and specialization enable farmers to make more by devoting their efforts to farming while some one else specializes in rendering marketing services. The practical question arises as to just how far specialization on the part of middlemen should be carried. For instance, should there be one concern to render the service of assembling farm products for ten farmers, for 100 or for 1000 farmers? Similarly, should there be one enterprise to retail food for ten families of consumers, for 50 families or for 500 families? The only justification for middlemen of any kind is that the needed service is thereby rendered more economically than without this kind of specialization. Obviously, therefore, if specialization is valuable because it results in a tendency toward less expense, lower margins and greater saving to the public, its greatest value is gained when all marketing services are rendered by those middlemen only whose expenses and profits combined represent the smallest possible margin or difference between farmer and consumer prices.

An Excessive Number of Middlemen Causes Needless Expense. — To make possible the rendering of marketing services at minimum expense to the public requires that there be neither too few nor too many marketing enterprises of each necessary kind. There should be as many retailers for a city as will provide the consumers with desired services efficiently, but not so many that duplication in effort makes excessive margins unavoidable. Similarly, there should be no more elevators at a local country point than are required to handle the total volume of grain at the lowest expense to farmers. The same principle applies throughout the marketing system whether the middlemen in question be brokers, wholesalers, retailers, processors or others, and regardless of whether the

agency be private, coöperative, or governmental. When the proper balance between the number of middlemen and the quantity of business is not worked out in accordance with both local and terminal conditions and the services required, it cannot be hoped or expected that marketing will be accomplished at minimum expense to the public. On the contrary, these necessary services may be rendered for indefinite periods of time by a system of marketing taking from consumers and farmers in costs and profits combined altogether unreasonable margins simply because of unnecessary duplication. In other words, the cause for present conditions is the failure to promote conditions retaining in business only that number of middlemen necessary to render marketing services at the smallest margin.

Excessive numbers of middlemen result in too little business for each to operate at minimum expense. The concern capable of handling 400,000 bushels of wheat but receiving only 100,000 bushels because of three other elevators at the same point, is compelled to pay, for manager's salary alone, four times as much per bushel of wheat as it would in handling the full 400,000 bushels. Besides many other expenses are similarly affected. Consolidation of all four elevators would reduce to one fourth the expense per bushel to employ an efficient manager. In the retail business the existence of too many retailers means that each 50 families of consumers must contribute more in the form of higher prices for services than would be required were 500 families supporting but one storekeeper.

Unnecessary Expense often Caused by Scarcity of Middlemen. — There are instances where too few middlemen operate because those in business have grown too large, just as in other cases too few have entered business to do most cheaply the work needed. Both of these conditions lead to the same result, namely, wide margins, as when there are too many

middlemen. These facts are well known to enterprising middlemen who recognize that properly balanced size is more to be desired than over or under size as a means of gaining profits. Public welfare requires that overgrown enterprises be reduced and part of their work be done by new and more efficient business units fully as much as to have those concerns consolidated or eliminated that are inefficiently small because of duplication.

Weaknesses Caused by Duplication and Undersize. — At least four serious weaknesses arise from the needless duplication, responsible for undersize of business and consequent inefficiency. These may be briefly stated as follows:

1. Inability of undersized enterprises to render essential services adequately and efficiently.
2. Excessive operating costs for handling commodities.
3. Inability properly to solve problem of seasonal surplus and deficit production.
4. Lack of coördination between marketing enterprises both in securing adequate supply and demand information and in acting upon it, a condition working against the establishment and operation of efficient distributing and selling systems essential to feeding markets.

Undersize Prevents Rendering of Essential Services Efficiently. — The rendering of essential services is seriously hindered wherever excessive numbers of middlemen, by attempting to operate, needlessly reduce the volume of business for each concern in retailing, processing, brokerage, local assembling, or other activity. For example, the retailers selling to farmers in exchange for farm butter do not practice grading. As a consequence they accept a large proportion of butter unfit for food, paying for it the same prices as for good butter. This practice unavoidably places a heavy penalty upon farmers who make high quality butter and gives a handsome

premium to those who make poor butter.[1] Furthermore, consumers inevitably suffer to the extent that a wrongly placed premium stimulates the continued production of butter of low grade instead of high quality.

Keen competition, recognizing no standard of quality, as now practiced by large numbers of middlemen, needlessly duplicating each other's efforts at local points, makes impossible the rendering of services essential to marketing improvement. Were all the eggs, now going to a number of middlemen at each point, regularly taken to one concern, it would have enough volume to warrant the maintenance of a grading system and to justify the operation of suitable cold storage not now available. The situation regarding butter and eggs is quite similar to that for cotton, wool, wheat, live stock and all other products of farms wherever consolidation of middlemen has not been carried out. If one turns to the consumer's end of the line the burden of duplication is even more apparent. A large proportion of the retailers whose annual sales are below $20,000 are utterly unable to maintain delivery systems or to provide credit service, both of which are essential for a large proportion of the consumers. They cannot render these services because the volume of business is too small to provide funds adequate to hire a deliveryman and provide the necessary facilities.[2] These and other illustrations might be elaborated to emphasize the fact that overduplication prevents the most economical development of specialization and often eliminates needed services.

Excessive Duplication Causes Increased Operating Expenses. — In Chapter III the service of assembling was found necessary to secure a volume of business required by an enterprise to operate at minimum cost. Duplication works directly against assembling and hence leads to rising costs.

[1] Kansas Exp. Sta. Bul. 216, pp. 21–25; Wis. Exp. Sta. Bul. 270, pp. 21–54.
[2] Wis. Exp. Sta. Bul. 324, pp. 5–7, 15.

All unnecessary duplication in whatever phase of marketing it may appear must therefore be regarded as a menace to efficiency and to the public welfare so long as competition is maintained between efficient enterprises. From another angle duplication means that the public is being forced indirectly to support more middlemen than are necessary to provide the services wanted.

This tendency to duplication and undersize is clearly illustrated by Figs. 40 and 41 and by the facts in Table XXXV,

TABLE XXXV. — EXTREME VARIATIONS IN SIZES OF RETAIL FOOD STORES IN ONE CITY [1]

SIZE OF GROUP	PER CENT OF RETAILERS	PER CENT OF AGGREGATE SALES	AVERAGE SIZE OF RETAILER IN EACH GROUP SHOWN AS A FRACTION OF THE LARGEST AVERAGE SIZE [2]	AVERAGE SIZE OF RETAILER IN EACH GROUP SHOWN AS A FRACTION OF THE LARGEST SINGLE RETAILER [3]
Under $10,000	10.1	1.0	1/52	1/120
$10,000 and under $20,000	24.0	7.5	1/17	1/31
$20,000 and under $30,000	14.0	7.9	1/9	1/22
$30,000 and under $40,000	14.0	11.5	1/6	1/14
$40,000 and under $50,000	17.7	18.6	1/5	1/11
$50,000 and under $60,000	7.6	9.5	1/4	1/10
$60,000 and under $100,000	6.3	10.8	1/3	1/7
$100,000 and over	6.3	33.2	1	1/2
Largest store [3]	—	—	—	1
Total	100.0	100.0	—	—

showing the retail store situation for one city. Here it has been carried so far that extreme inefficiency is the result because four fifths of the retailers could not reduce overhead and operating expense while a few do a large business and are relatively efficient and could operate successfully with nar-

[1] Wisconsin Agric. Exp. Sta., Bul. 324, p. 9, Table 11, City of Madison, Wisconsin.

[2] Aggregate sales $3,326,896.90; range in average store sales per size of group, $4,195 to 220,254.

[3] Largest one retailer sold upward of $500,000 worth of commodities.

rower margins. Each black bar in Fig. 40 represents the value of sales during 1919 for one retailer. The shortest bar indicates a retailer selling less than $2000 worth of groceries or meat. The five longest bars show that five retailers averaged sales of over $200,000 each, no one of whom did a business of less than $100,000. Four fifths or 63 of these 79 retailers each sold less than $50,000 worth of food in 1919. Most of them are too small and inefficient to render the public the

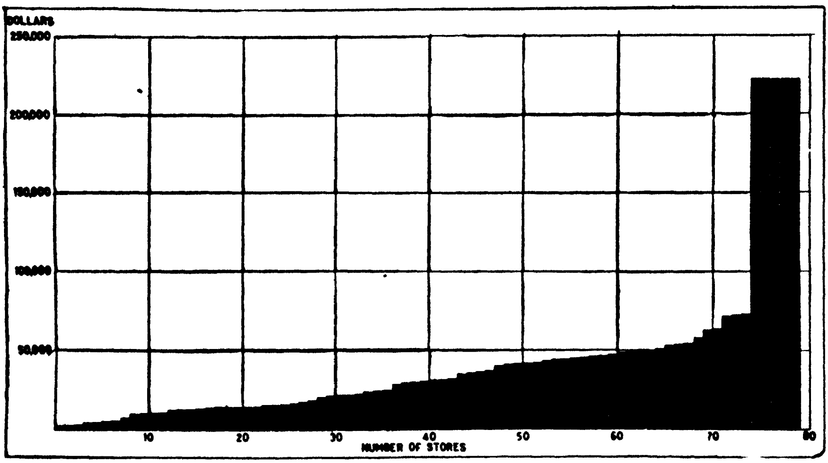

FIG. 40.—ONE OF THE RESULTS OF UNREGULATED COMPETITION

Each bar in the illustration represents a year's sales by one retailer. The smallest indicates sales of less than $2000 a year and the five largest average over $220,000 each. Four fifths of the 79 stores shown sold less than $50,000 worth of goods yearly and scarcely earn profits. They are too small to purchase products efficiently or handle them economically and consequently require high prices to remain in business. (See text, pages 339–343.) (Courtesy Wisconsin Station.)

service which is desired at margins that would both please the public and give the retailers a profit.

While the eight pigmy retailers (see Fig. 41) had to have wide margins to meet their excessive expenses, and even then did not make profits, the giant retailers receiving the same or lower prices made profits. It is futile to expect improvement in retailing so long as conditions remain which keep these inefficient concerns in business.[1] The group of smallest retailers numbering 10 per cent of the total and doing but

[1] Wis. Bul. 324, pp. 12–13.

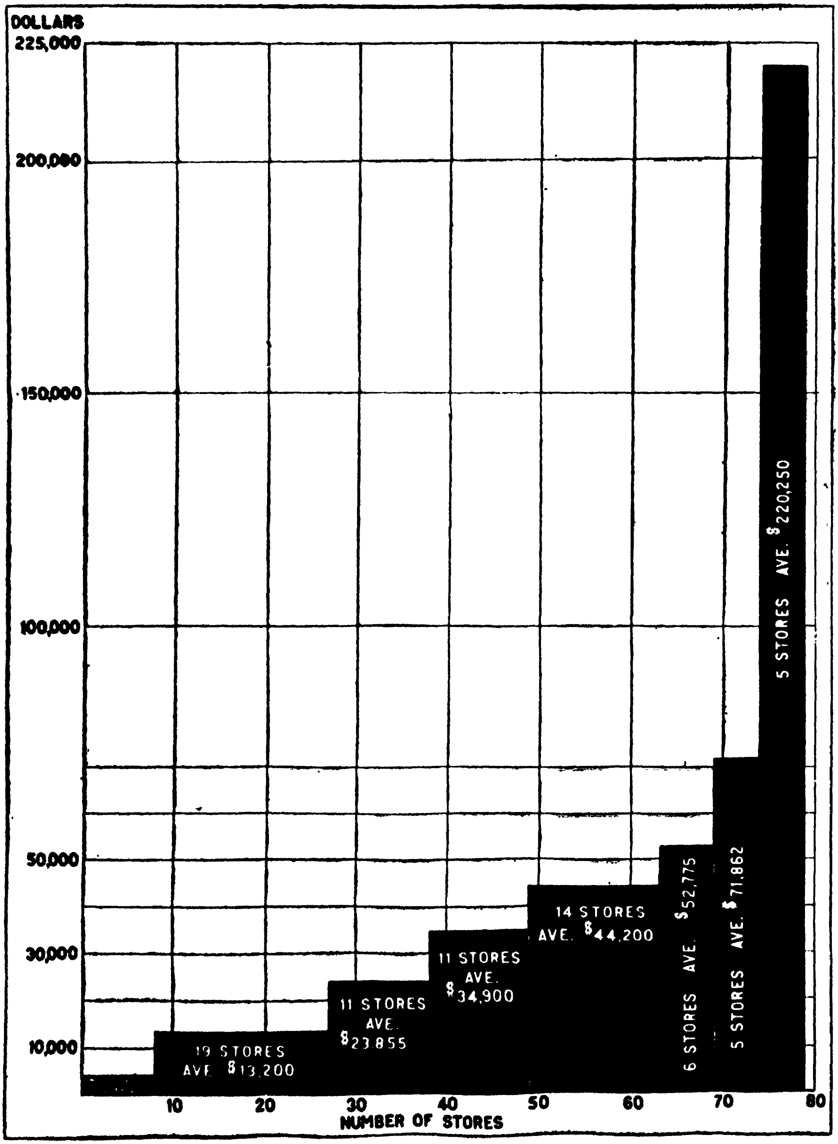

FIG. 41.—BY WHOM IS MARKETING ACCOMPLISHED?

One sixteenth of the retailers did one third of the business, as indicated by the longest bar, while one seventh of them did one fifth of the business, shown by the two next bars, leaving to four fifths of the retailers less than one half of the business. The smallest concerns cannot operate with lower prices because of being too small to be efficient. This is the result of excessive duplication. (See text, pages 339–343.) (Courtesy Wisconsin Station.)

one per cent of the business averaged only one one-hundred-twentieth of the size of the largest retailer. Four fifths of them ranged from one one-hundred-twentieth to one eleventh of the size of the largest concern. Practically all of the smaller concerns had unusually high expenses, a fact which is one of the main causes of wide margins or high prices in food retailing.

The extent of duplication and hence undersized business units is by no means confined to the retail phases of marketing. While the range in size of retail concerns was from the largest one down to one one-hundred-twentieth as large, creameries in one state ranged in size from the largest one down to one five-hundred-twenty-eighth as large. Moreover, 28 per cent of these creameries averaged only one five-hundred-twenty-eighth of the size of the largest creamery. (See Table XXXVI.) More than three fifths of the butter of this state (Kansas) was made by creameries numbering only 9 per cent of the total and varying in size from that of the largest to one third as large. Three fifths of the creameries in this state turning out but 6 per cent of the butter had excessive costs in manufacturing and distributing because of the very small volume of business per creamery. Yet these excessive costs largely determined the width of the competitive margin between farmer and consumer prices. Consolidation of these small inefficient creameries or their elimination is an essential step to improvement. While small their excessive costs prevent real competition capable of reducing margins. They remain in business, however, in no small measure as a result of protection by so-called anti-trust laws which actually limit competition at the point where an efficient concern able to pay higher prices for butterfat would, by paying them, unavoidably put the small inefficient creamery out of business. The law literally retains in business inefficient concerns against the public interest. Such conditions,

aggravated by the extreme tendency to duplication made permanent by legal protection, are in no small measure responsible for slow improvement in the marketing system. Fortunately the courts are commencing to rule that size is not against public interest except when it constitutes monopoly in action. In this there is hope for constructive improvement.

TABLE XXXVI. — EXTREME VARIATIONS IN SIZES OF CREAMERIES IN ONE STATE [1]

SIZE OF GROUP	PER CENT OF CREAMERIES	PER CENT OF TOTAL BUTTER	AVERAGE SIZE OF CREAMERIES IN EACH GROUP SHOWN AS A FRACTION OF THE LARGEST SINGLE CREAMERY [2]
Under 25,000 lbs.	28.2	1.0	1/528
25,000 lbs. under 50,000 lbs.	18.0	2.0	1/150
50,000 lbs. under 75,000 lbs.	15.3	3.2	1/82
75,000 lbs. under 100,000 lbs.	5.1	1.3	1/66
100,000 lbs. under 200,000 lbs.	9.0	4.3	1/36
200,000 lbs. under 300,000 lbs.	3.8	2.7	1/24
300,000 lbs. under 400,000 lbs.	2.6	2.6	1/17
400,000 lbs. under 500,000 lbs.	3.8	5.5	1/12
500,000 lbs. under 1,000,000 lbs.	2.6	5.1	1/8
1,000,000 lbs. under 1,500,000 lbs.	2.6	9.0	1/5
1,500,000 lbs. under 2,000,000 lbs.	7.7	41.5	1/3
5,000,000 lbs. and over	1.3	21.8	1
Total	100.0	100.0	—

Conditions resulting in duplication similar to those for retail stores and for creameries are found among both private and coöperative elevators, among cream stations and almost every other kind of middlemen where a program of consolidation or elimination has not been carried out. Figures pre-

[1] Data from original material gathered for *Kansas Exp. Sta., Bul. 216.* State of Kansas.
[2] Output, 5,283,838 pounds.

sented in Tables XXXVII, XXXVIII, and XXXIX serve to emphasize further what has already been explained.

TABLE XXXVII. — EXTREME VARIATIONS IN SIZES OF LOCAL GRAIN ELEVATORS IN ONE STATE [1]

NUMBERS OF BUSHELS HANDLED PER ELEVATOR	PER CENT OF ELEVATORS	PER CENT OF BUSHELS HANDLED	AVERAGE SIZE OF ELEVATORS IN EACH GROUP SHOWN AS A FRACTION OF THE LARGEST SIZE	AVERAGE SIZE OF ELEVATORS IN EACH GROUP SHOWN AS A FRACTION OF THE LARGEST SINGLE ELEVATOR [2]
Under 50,000	20.0	5.4	1/11	1/13
50,000 under 100,000 . .	28.4	17.6	1/5	1/6
100,000 under 150,000 . .	13.7	12.8	1/3	1/4
150,000 under 200,000 . .	19.0	24.7	1/2	2/5
200,000 under 250,000 . .	8.4	14.0	3/5	5/9
250,000 under 300,000 . .	7.4	16.0	7/10	3/5
300,000 and over . . .	3.1	9.5	1	4/5
Largest single local elevator .	—	—	—	1
	100.0			

TABLE XXXVIII.—THE EXTENT OF DUPLICATING ELEVATORS IN ONE STATE

NUMBER OF ELEVATORS PER TOWN	NUMBER OF TOWNS	NUMBER OF ELEVATORS	PER CENT OF TOTAL GRAIN HANDLED	BUSHELS OF GRAIN PER TOWN	AVERAGE BUSHELS OF GRAIN PER ELEVATOR
1	388	388	34.2	103,000	103,000
2	229	458	40.3	206,000	103,000
3	58	174	15.3	309,000	103,000
4	22	88	7.8	412,000	103,000
5	4	20	1.8	515,000	103,000
6	0	0	—	—	—
7	1	7	.6	721,000	103,000
Total . . .	702	1,135	100.0	167,000	103,000

[1] Data from *Kansas Exp. Sta., Bul. 224*, p. 51 for State of Kansas.
[2] Elevators ranged in size from 6000 to 478,000 bushels each.
[3] State of Kansas, data from *Kansas Exp. Sta., Bul. 224*, p. 36, Table XII.

TABLE XXXIX. — EXTENT OF DUPLICATING CREAM STATIONS IN ONE STATE[1]

Number of Cream Stations per Town	Number of Towns	Number of Cream Stations	Per cent of Butterfat Handled	Lbs. of Butterfat per Town	Average Lbs. of Butterfat per Cream Station
1	282	282	14.0	10,667	10,667
2	240	480	23.8	21,334	10,667
3	151	453	22.5	32,001	10,667
4	101	404	20.0	42,668	10,667
5	50	250	12.4	53,335	10,667
6	11	66	3.3	64,002	10,667
7	8	56	2.8	74,669	10,667
8	2	16	.8	85,336	10,667
9	1	9	.4	95,903	10,667
Total . . .	646	2,016	100.0	25,420	10,667

Needless Duplication Prevents Proper Handling of Surplus. — When the multiplication of duplicating units has been carried to the point of making the usual marketing concern inefficiently small, and there are abundant evidences of this on every hand, men are necessarily drawn into the management of these pigmy enterprises whose knowledge, capacity and experience are utterly inadequate to render properly the various essential services. This is particularly true of the storing service. Storing products economically or in a manner that meets the needs and conserves the interests of both farmers and consumers cannot be accomplished by unintelligent narrow-minded managers. This is the case because men of this sort have little or no conception of the economic characteristics of production and of consumption, or of the fundamental work which middlemen somehow must accomplish. Moreover, they are hampered by insignificant size of business and by inadequacy of facilities or finances to store products. The reason for this inability is obvious. Virtu-

[1] State of Kansas, data from *Kansas Exp. Sta.*, *Bul. 224*, p. 37, Table XIII.

ally all undersized concerns have managers whose caliber prevents the growth of these undertakings to that balanced volume of business which permits maximum service at minimum cost.

The characteristic of incapable managers generally is to do their work, as well as to live their lives, after a "hand-to-mouth" fashion. Planning based upon systematic study and analysis of their work and opportunity is the exception for them. Consequently they have little if any vision and are obliged to "play safe" at all times. Those attempting to render the service of storing products as middlemen vary all the way from exceedingly small and inefficient concerns with this sort of managers, to companies of great size hiring well-informed experts. The latter are able to render this service scientifically, although competitively they are obliged to buy or sell at prices which merely meet or slightly improve upon those paid by weak competitors. While these efficient concerns meet high standards, competitive storing as now performed for farmers and consumers is regulated by these small concerns whose inability must inevitably result in extreme price fluctuations.

The necessity for "playing safe" leads these pigmy concerns to bid those prices only which consumers at the moment will pay for the current supply, utterly disregarding the fact that some months later shortage of products must inevitably pinch the consumer and drive prices skyward unless commodities have been stored from the earlier period of surplus production. If consumers must bid upon the entire current supply of an article like butter, the production of which varies from 40 per cent below to 100 per cent above the average monthly production and consumption (see Fig. 42), it is inevitable that they should be unwilling to pay as much per pound as though only a normal supply were available. Violent price fluctuations occur seasonally because this problem of surplus

and deficit production is not properly handled by middlemen. Yet so long as unnecessary duplication continues, with the result that among all classes of middlemen there are inefficiently small concerns rendering the service of storing, unjustifiable seasonal price fluctuation is likely to occur and reoccur.

Private middlemen capable of efficiently storing the surplus and thereby stabilizing prices can hardly be expected to exercise this ability wholly in the interest of farmer and consumer while competition is so little safeguarded by minimum standards as at present. The inefficient concerns which permit the prices to fall appreciably below the line marked 100 in Fig. 42 in order to satisfy themselves that a safe margin is being taken also permit the more efficient concerns to obtain a wide margin. The latter, however, because of efficiency could pay prices on a straight line only slightly below the line marked 100 in Fig. 42, if it were not for the low standards caused by inefficient concerns. This is the case because they could carry over all of the surplus to meet the usual demand during the period of underproduction. That they will not accomplish this purpose is an obvious result of competitive conditions in which duplication has gone so far that inefficiency is rampant. Minimum standards of efficiency are necessary and further organization and consolidation essential if this problem of surplus production and price fluctuation is to be solved. Development of reasonable organization and efficiency throughout the marketing system would result in more uniform marketing of farm products throughout the year and a more stable price level. Improvement requires organization with sufficient size and distributing connections to commence reserving the surplus for storing purposes the moment accumulations upon the current market cause the price to fall below the normal line (the line marked 100 in the illustration, Fig. 42), sufficiently to cover carrying charges.

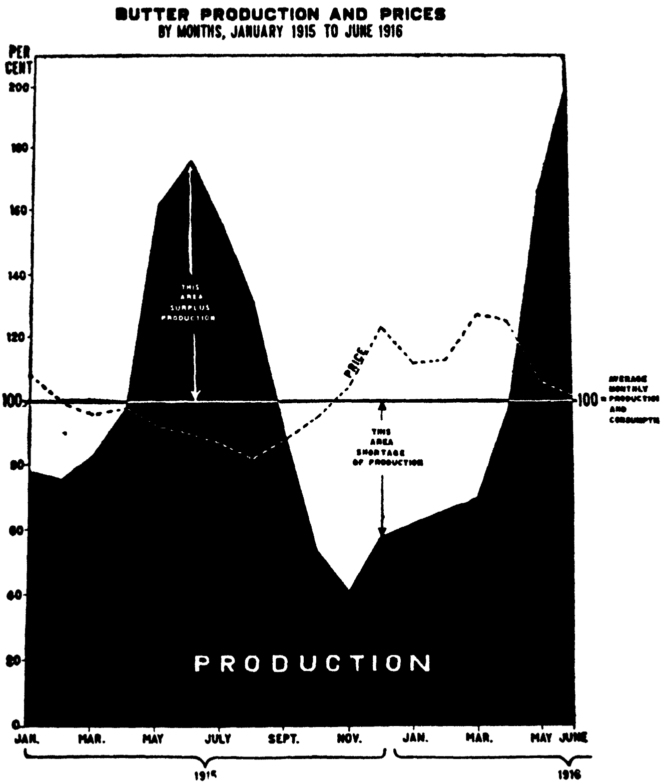

FIG. 42.—THE PROBLEM OF SURPLUS PRODUCTION AND FLUCTUATING PRICES

Storing facilities have led to the holding of many farm commodities from the period of surplus production to that of consumption. The weakness in this situation lies in the fact that private middlemen delay the purchase of products for storing until accumulations of surplus on the markets have greatly depressed prices. If this evil is not overcome by private middlemen, coöperative middlemen will displace them in rendering the service of storing. (See text, pages 346-349.)

Duplication Causing Excessive Number of Middlemen Prevents Coördination. — The most serious consequence of these numerous duplicating, undersized middlemen is the fact that coördinated action among them is impossible. Alternate glutting and starving of markets the country over is a potent cause of dissatisfaction on the part of farmers, of complaints and misunderstandings among consumers, and of wide margins and failing enterprises among middlemen. Each of these groups has much to gain and little to lose by the perfection of distributing or sales organizations capable of placing freely

produced supply upon the markets of the country under conditions which bring stability and confidence to all. Most of the managers in charge of these excessively numerous undertakings of small size fail, however, to understand or appreciate the value of this sort of organization.

Unfortunately, undersized middlemen do not comprehend that the conditions of commercial farming and marketing require coördinated action if products are to be distributed to consumers with truly competitive results. *Their conception of competition is that of a "free-for-all fight" in which the umpire either is non-existent or else rules that the inefficient must be protected against the encroachments of the efficient. Under such conditions true competition exists in name only. High costs injure the public in the same manner as monopoly profits. Both increase the slice which is taken out between farmer and consumer prices.*

Because of their lack of ability and economic knowledge these overnumerous, undersized middlemen glory in an independence for which they refuse to recognize the universal need of constructive consolidation and organization as a means of rendering the distributing service at the minimum of costs and profits. As a result, coördination as a means of properly feeding markets is made impossible while continuance of market glutting and starving with extreme price fluctuation as a consequence, is guaranteed.

The fundamental need for coördinated action as a means of efficiently distributing farm products was discussed at some length in Chapter XVI. It may be illustrated in almost any phase of agricultural marketing. For example, take oranges before and after the organization of the California Fruit Growers' Exchange.[1] Originally numerous small duplicating private middlemen purchased the fruit locally and when a

[1] The Dearborn *Independent*, July 24, 1920, pp. 14, 15; *The Grain Growers' Guide*, July 14, 1920 pp. 9, 15; *Breeders' Gazette*, Jan. 22, 1920, p. 187.

given market looked favorable each consigned his supply to it. Thus whenever any section gave signs of shortage, almost immediately a heavy surplus supply was invited which caused certain flooding of the market with consequent depression of prices. Under these conditions no one individual was to blame either in the growing or the marketing of citrus fruit. The entire system itself was wrong because endless duplication among middlemen caused them to be undersized, prevented the performance of essential services and made excessive margins necessary, owing to their unavoidably high expenses and losses. In contrast to this demoralized situation, in which competitive results were not safeguarded by consolidation and coördination through efficient organization, there is to-day an almost ideal distributive organization which moves the entire crop freely produced under conditions which prevent both market glutting and starving. In this way the growers secure the best prices afforded by the markets of the entire country. This result has been achieved by organization eliminating duplication so far as possible and properly coördinating the actions of its various members. Without coördination to prevent market flooding and starving, price demoralization is bound to continue with all of its evil effects upon not only farmers and consumers but middlemen as well. Duplication and undersized middleman units constitute the principal preventatives of proper coördination.

Weakness Caused by Oversize. — While there are comparatively few examples of oversized middlemen in the field of marketing farm products in contrast with the enormous number of undersized concerns, it should not be overlooked that evils arise from this cause as surely as from undersize. Briefly these weaknesses may be summarized as follows:

1. Excessive costs in handling products.
2. Excessive overhead costs in distributing or selling.
3. When monopoly power is acquired and exercised, high

profits, instead of being earned as a competitive premium serving to stimulate increased production, are exacted by wide margins arbitrarily calculated instead of being determined by the unreasonable costs of the least efficient middleman.

The greater dangers arising from weaknesses and evils of oversize in comparison with those of undersize are largely due to the increased difficulty of eliminating weakness on the part of organized as compared to unorganized business units. Immense size represents the organized support of financial resources and of a large number of people, a support not enjoyed by disconnected, undersized concerns of which there are great numbers. The fact that these undersized concerns may be eliminated or consolidated somewhat more readily than the evils of oversize can be corrected, while it is a more difficult task effectively to reduce the oversized undertaking to a smaller and yet more efficient operating unit, justifies greater fear of the inefficiency of the large concern. When oversize has been developed to the point of creating monopoly power the problem of control or regulation in the public interest must take a form different from that designed to eliminate, consolidate or organize competing units formerly disconnected. More will be said in respect to this problem in Chapter XIX.

Weaknesses Caused by General Misunderstanding. — The environment or medium in which any kind of machinery must operate decidedly affects its use and the results derived thereby. Economic success depends upon a series of relationships, no single element of which alone is likely to bring satisfactory conditions or results. Some of the more or less universal obstructions that limit the functioning of a marketing system were discussed in Chapter I. That these personal psychical reactions on the part of farmers, middlemen, and consumers persist as a drag upon or hindrance to more efficient marketing is largely due to the general ignorance of

economic facts and principles. Those who do not comprehend economic forces and consequently fail to conduct their operations in accordance with economic principles, can scarcely claim gratifying results. Success in any form is the outgrowth of understanding, initiative and application. The well-nigh universal lack of economic knowledge and appreciation is one of the outstanding causes of weakness in modern marketing.

In groping for solutions to the various weak points in the marketing system the uninformed invariably discover and apply superficial remedies instead of searching for those underlying facts and principles upon which fundamental and constructive improvement alone may be built. Perhaps the greatest single weakness in the present marketing situation is the universal failure to appreciate the importance of a premium properly awarded. Everywhere the clamor is for more efficient marketing, implying a result which will give consumers their supply at lower prices and farmers a market paying higher returns, something which may be realized only by a system able to operate on narrower margins or smaller differences between farmer and consumer prices. *The public and politicians almost universally seek to reduce the width of the marketing margin by regulating profits while wholly disregarding the stimulating forces which created these competitive rewards.* Competitive profits, unlike monopoly profits, do not in any sense reduce prices to farmers or increase them to consumers. They are earned because those operating the business have applied their initiative and energy diligently to the task of reducing expenses to the smallest amount possible, so that the remainder of the competitive margin might be retained as profits instead of being absorbed entirely by needlessly heavy expenses

The problem of modifying the present marketing system so that expenses of the least efficient middlemen remaining in

business may be covered in spite of a smaller margin, is the task of bringing consumer and farmer price levels closer together without destroying the stimulating influence of the competitive premium known as profit. To illustrate this problem, Fig. 43 has been constructed in the form of two parallel lines, the lower one representing what the middlemen pay for commodities handled, say 70 cents per unit, and

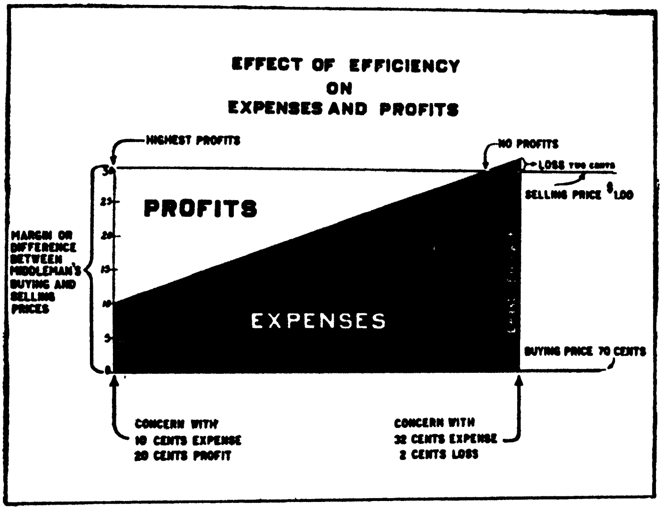

FIG. 43.—COMPETITIVE MIDDLEMEN MAKE PROFITS THROUGH EFFICIENCY

Competition results as a rule in the same price for commodities of similar kind and grade. Middlemen differ greatly in efficiency and hence in operating expenses. Those who have the lower expenses make profits, while those with excessive expenses not only make either very small profits or none at all, but some actually lose money. The large profits of some competitive middlemen, therefore, do not come from robbing others, but from reducing expenses through economy in buying products and handling them, made possible by their superior management. (See text, pages 352–356.)

the upper line indicating what they receive for these goods, say $1 per unit. The least efficient competitive middlemen are shown as those whose expenses not only eat up the entire margin, or 30 cents, in the form of excessive costs, but overrun that amount by an additional two cents, which means positive loss. Naturally those who continue to lose money for any length of time are soon eliminated from business through failure. Generally speaking, all individual middlemen who are not able to "break even," that is, meet expenses

but earn no profits, are automatically thrown out of business.

At the other end of Fig. 43 the most efficient competitive middlemen, receiving the same margin of 30 cents per unit handled that was received by the least efficient middlemen, are shown as having reduced their expenses to 10 cents instead of 32 cents, thereby earning a profit of 20 cents per unit. Profit regulation as viewed by the public is one of making the line indicating the selling price become parallel with the upper expense line instead of keeping the buying and selling price lines parallel while moving them closer together. *The premium must always be so arranged that the higher the quality of product or service the greater the reward.* Then capable competitive management will be stimulated always to do its best in behalf of farmers and consumers. To ignore the valuable influence of the premium, on the contrary, would be destructive because those who work diligently to become efficient would slip back into less and less efficient groups as the premium is successively reduced.

The improvement of marketing depends directly upon two things: (1) the discovery and use of increasingly efficient marketing methods by middlemen, whether these be private, coöperative, or governmental; and (2) the constant and effective elimination of outworn and inefficient methods. So long as private middlemen dominate the marketing of farm products it is directly to the interest of the more efficient to have enough inefficient concerns in business to make a wide margin. Were business done competitively by the most efficient only, profits would fall because the buying and selling price lines would be closer together, in fact, so close that were the diagram (Fig. 43) remade to represent this improved situation the black area representing expenses would not only be somewhat smaller but the white area meaning profits would be decidedly smaller. Stated differently, the change caused by a reduced marketing margin would mean that the top or

selling price line instead of starting at the point marked 30 would commence at the point marked 15. In consequence of the reduced price, from $1 to 85 cents, consumers would bid for a greater supply as a consequence of which the middleman buying price line would rise, say from the point marked 0 to that marked 5. Thus more efficient methods made operative throughout the field of marketing by organization, designed effectively to eliminate the more wasteful and expensive methods, would make possible the rendering of necessary services on lower margins, the benefits therefrom being divided among both farmers and consumers, without in any sense destroying profits and their stimulating influence.

At the present time most legislation to solve the marketing problem not only overlooks the fundamental problem of a stimulating premium, but many laws actually work against it by directly protecting and retaining inefficient middlemen in business. The whole philosophy of public regulation of private or coöperative effort must be revised and a new point of view established by legislation so that the premium is placed upon that kind of efficiency which gives the public truly competitive results. The public has the right to insist upon increased efficiency. What it has wanted but has failed to get by its clamoring is the enforcement of conditions among middlemen that will place the premium aright and cause marketing to be done wholly by efficient middlemen. That results have not been achieved may be directly laid to the fact that people universally have not appreciated either the nature of the problem or the means of solution. This lack of understanding of itself is generally one of the most fundamental weaknesses of the present marketing situation.

SUMMARY

1. The marketing system is made up of parts which necessarily function with varying degrees of efficiency. Hence costs of marketing vary for differ-

ent business units rendering identical services. The weaknesses in this system arise from the fact that operating efficiency varies too greatly because inefficient middlemen and their methods of marketing are not displaced rapidly enough by middlemen of superior efficiency using the best marketing methods. The consequences are shown in wide margins, improper handling of seasonal surplus, alternating market flooding and undersupply, and instability of prices attended by hardship to producers and consumers.

2. The test of marketing efficiency is the performance of maximum service at minimum expense to farmers and consumers under conditions giving farmers the highest proportion of the consumer's dollar and stimulating in return production of commodities adequate to meet the needs of the greatest possible number of consumers.

3. Efficiency is prevented by oversize as well as undersize. Both causes of inefficiency must be eradicated or improvement cannot be realized.

4. Inefficiency caused by undersize arises from the fact that needless duplication reduces the volume of business per enterprise below that required to permit operation at the least expense. Hence the high expenses of the smallest concerns continuing in business indicate a laxness of competition which permits wide margins so that the least efficient middlemen have wide margins to cover their excessive expenses. The most efficient middlemen are glad to have margins made as wide as possible by inefficient competitors because this gives them relatively high profits. Under these conditions price cutting narrows the margin. Price cutting is not generally good business practice for those who seek profits because profits are thereby reduced and middlemen eliminated who were the former cause of wide margins.

5. Lack of coördination among middlemen, perpetuated by conditions resulting in duplication, undersize and unintelligent management, prevents efficient distributing and selling of farm commodities. Consequently storing products and feeding them to the market have not been developed in a manner to give the greatest stability in prices consistent with the disposal of all that farmers freely produce. Consolidation, federation and coördination are requirements of organization capable of solving these problems.

6. It must not be forgotten that oversize leads to inefficiency and that enterprises of this kind are more to be feared than the small, inefficient concerns. Inefficiency backed by organization has staying qualities which are not true of inefficiency on the part of middlemen who are small and numerous but unorganized. The evils of monopoly, of inefficient large-scale competitive enterprises, and of small-scale competitive enterprises, differ only in degree and in the ability to resist eradication. Monopoly is to be feared most and the small inefficient concern least, though measures should be taken to eliminate all who are inefficient.

7. A high proportion of the attempts to improve marketing are based on the idea that either prices or profits should be regulated. Action to improve marketing by regulating prices or profits of competitive enterprises is essen-

tially destructive or negative because it does not recognize fundamental economic principles. In particular it disregards the importance of a premium properly placed. Yet people of all classes know that a premium must be paid to get quality in products, services, or results of any kind. This principle applies to marketing with double force. Profit regulation for competitive enterprise takes the premium from the efficient where it should be and places it upon inefficiency, the very thing which must be eliminated if improvement is to be realized. In other words, in its clamor for certain kinds of governmental action the public is blindly demanding that present evils be made worse instead of improved.

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CHAPTER XVIII

ORGANIZATION THE BASIS OF IMPROVEMENT IN MARKETING

MARKETING services relate either to the physical preparation or handling of products or to the gathering and interpretation of facts and the making of agreements which facilitate the movement and disposal of commodities. Because of their characteristics, the various marketing services necessitate specialized organizations of different kinds if the marketing system is to function most efficiently. This is the case because some services have to do with economic forces of local significance, while others have to do almost wholly with economic forces, the scope and influence of which are country-wide. Arranged according to their local or country-wide scope the more important relationships involved in an efficient marketing system have to do with the following:

I. Local relationships according to commodity.
   1. Quantity of product.
   2. Quality of product.
   3. Economic and efficient operating units.
   4. Knowledge and appreciation by farmers, middlemen, and consumers of mutual economic functions and responsibilities.
   5. Definite arrangements to promote individual and mutual improvement on the part of farmers and local middlemen or of consumers and retailers.

II. Country-wide relationships according to commodity.
   1. Volume for constant car-lot movement of products.
   2. Railroad service and rates.
   3. Financing.
      (*a*) For adequate facilities to handle commodities.
      (*b*) For adequate warehousing or storing facilities.
      (*c*) For storing products according to standards of efficiency and public welfare.

4. Storing.
5. By-product development.
6. Advertising and market expansion.
7. Supply and demand facts of dependable nature.
8. Distributing connections and machinery to feed markets.
9. Tariff and other political matters.
10. Research to discover possibilities for further improvement.

Marketing systems built upon scientific principles, in other words, the integrated marketing method, consist of a series of successful local organizations federated, either with or without district grouping, into one or more central organizations. Organization in each case is essential in order to provide machinery that will definitely and constantly function in maintaining and improving the relationships between farmers and local middlemen and between local and terminal middlemen. Practical experience long has demonstrated that successful and efficient marketing depends upon these relationships more than anything else. Wherever improvements have been brought about the constructive changes have consisted of organization to create or perfect these necessary and constant working relationships.

Importance of Relationships in Local Marketing. — To farmers, the proof of superior production is found in the rela-

DETAILED DESCRIPTION OF FIGURE 44

Nos. 1 and 2. — Interiors of cream stations, showing boiler, cream-testing outfit and cream cans. The cream station is the most economical method of marketing butterfat by farmers who milk a few cows as a side line.

No. 3. — Business office and accounting department of a large creamery where experts see to the efficient marketing of butter in distant states and a clerical force handles the information of the business, which makes possible low costs and highest possible prices for butterfat.

No. 4. — Cream receiving and weighing room. Here the problem is to determine correct weights, the commercial grade of the cream and start the butterfat on its way to the pasteurizer, where the germs that would make poor-quality butter, as well as those that spread disease to the consumers, are killed.

No. 5. — Cream-testing room, where the amount of butterfat in the cream received from each farmer or cream station is accurately determined. The results obtained in this process and in weighing and grading the cream, determine the amount of the farmer's cream check.

No. 6. — Starter room, where the bacteria which cause good flavor in butter are grown in sterile milk. This bacteria-filled milk, known as starter, is mixed with the cream before churning, and aids not only in making good-quality butter but also in preserving butter.

No. 7. — Churn room, in which the cream after leaving the vats, where it was mixed with starter and cooled to the proper temperature, finds its way into power churns and is converted into butter.

No. 8. — Moisture-testing room and chemical laboratory, where carefully taken samples from each churning are analyzed and the percentage of water accurately determined. Butter must not contain over 16 per cent of water on penalty of a heavy fine; hence the importance of a well-equipped laboratory.

tive quality and quantity of crops turned out by different men. On the basis of these tangible results, practical farmers then judge the merits of the various methods followed in planting, cultivating and harvesting upon the respective farms. When farmers find, for example, that the man who obtained the most remunerating crop was one who tested his seed, fumigated or dipped it when necessary, prepared the ground in some special manner and cultivated more diligently according to the requirements of particular conditions, they become convinced as to what each should do to improve his own conditions. The problem of determining what should be done to improve marketing conditions either locally or terminally is similar to that of bettering individual farm production. Just as the farmer himself is obliged to introduce better methods in his own farm operations, if he would gain the benefits of improvement, so also each local community is obliged to create relationships, among farmers and the middlemen upon whom they rely for marketing services, if marketing is to bring satisfactory results. The fact that the entire local community constitutes the marketing unit at

DETAILED DESCRIPTION OF FIGURE 45

No. 9. — Butter taken directly from the churn is packed in large boxes for cooling, preparatory to being cut into pound prints and sold to retail stores.

No. 10. — In many of the primary markets, tub butter is more generally handled than butter put up in other types of packages. This picture shows tub butter in storage preparatory to shipment.

No. 11. — Most of the tub butter purchased, either from the supply of current production or from the storage supply, is taken from the tubs and made into prints before it goes to the retailer.

No. 12. — In this room prints of butter are wrapped in parchment and then placed in the cartons, sealed, and passed along by machinery to boxes, where they are packed for shipment.

No. 13. — Butter is assembled from the storage rooms to one place previous to shipment by means of labor-saving machinery. Notice the carrier used for this purpose. Careful checking saves by reducing losses and eliminating misunderstandings. Accuracy and a record of business facts are essential to creamery success.

No. 14. — Large concerns, because of the great quantity of butter handled, are enabled economically to provide facilities for shipping, which save large drayage bills and the extra cost in freight due to the higher rates ruling for less-than-car-lot shipments of butter. Notice the quantity of butter handled by trucks where these expense-reducing facilities are provided.

No. 15. — Concerns which make a large volume of butter make use of immense quantities of supplies, such as butter color, salt, liners, parchment paper, tubs, boxes, cartons, etc. To buy these supplies in large amounts at one time, in order to take advantage of the lower prices given to those who place large orders, it is necessary to have room at the creamery to receive them. Hence the economic value of a spacious supply room.

No. 16. — Large creameries find a repair department, in which the men employed become expert, an expense-reducing addition. In small-sized concerns, of course, one man, who supposedly should be expert at every task, seldom works on one job long enough to become expert at anything.

country points, instead of the individual farmer, is a point which cannot be emphasized too strongly. Moreover, these relations do not grow without cultivation and much time is required to make them bear fruit. As a rule few if any of these vital relationships either locally or terminally are built up without the aid of formal and dependable organization. For the purpose of strengthening organization contracts are being used more extensively than ever before.

The importance of local relationships is amply illustrated in the making of high-grade butter in a community creamery. It is generally agreed that a creamery cannot render its services and pay reasonable prices for butterfat which makes less than 100,000 pounds of butter annually. This quantity of butter requires approximately 84,000 pounds of butterfat, a volume which must come from about 70 farmers, each of whom produces 1200 pounds yearly. Under the simplest conditions relations must be established between the creamery management and these 70 farmers which will result in a continuous minimum supply of raw material. Because every country community contains farmers whose knowledge and appreciation of standards of high-grade butterfat production vary greatly and because many are not able or willing voluntarily to turn out a suitable grade of cream, it is essential that proper standards be devised and enforced. The great value of organization lies in the fact that it is the only known practical means of establishing and maintaining working relations between a group of farmers, including all of its members, and a marketing concern, whether private or co-operative. These working relations are necessary to the production not only of high-grade raw material but also of superior finished products. Furthermore, formal organization is the only known practical means of providing contacts through which mutual problems may become known and mutual responsibility for their solution assumed. Of equal

importance is the realization by farmers, and by the middleman serving them, that improvement depends on their mutual efforts to use superior methods and to understand more fully each other's difficulties and what must be done to overcome them. In daily working relations of this sort are to be found the secrets of greatness which have created the examples of efficient local and federated marketing enterprises for which California, Canada, Denmark and New Zealand have become noted.

The value of these relationships, which may be cultivated by each community and which formed such a vital part of an efficient marketing system, has been appreciated most by those charged with the responsibility of stimulating or instituting constructive changes. Thus the New Zealand Government in promoting the dairy industry established a scheme of inspection which provides for the upbuilding of those relationships between farmers and butter exporters, the absence of which for many years prevented the winning of profitable markets.[1] As a means of tracing the ingredients of butter to their source of production, this plan instituted working relationships between farmers and creameries which stamped out both poor raw material and inferior finished commodities. Backed by these fundamental relations in each local community it is no wonder that the dairy industry of New Zealand is able to enter any market with its butter as a competitive product second to none. The conditions, aside from quality, forming a part of the secrets of business success in marketing (see Chapter XII) are as fully dependent upon these intangible though definite relationships between farmer and middleman as is quality itself.

During a state-wide marketing conference convened for the first ten days of February, 1921, in response to a proclamation of the Governor of Wisconsin, recommendations em-

[1] *Hoard's Dairyman*, Vol. L, No. 16, p. 481.

phasizing the peculiar importance of having satisfactory working relations as a basis of marketing improvement were adopted and given wide publicity. Typical of the constructive resolutions passed by this conference were those dealing with the "Canned Pea Industry" and with the "Whole Milk Industry," each of which called for action to create better relationships. The brief resolution concerning the pea industry will suffice to show the nature of these relationships.

Recommendations for Improvement in Marketing Canning Peas. — "The success of the pea-canning industry depends upon a series of pea-growing and canning communities in which the pea growers and canners of each community must realize that the future of each depends upon mutual understanding and confidence.

"There are in Wisconsin both a number of factories and a large number of farmers who do not realize this interdependence of pea-canning factories and their growers.

"To promote coöperative relations between managements of the canning factories and the pea growers and to provide arrangements by which unavoidable misunderstanding and difficulties confronting either canners, farmers or both, in each locality may be averted, be it recommended that the Wisconsin Canning Crop Growers' Association be perfected to carry out the following resolutions:

"First, That a relations committee of three growers representing the growers, and a similar committee of three persons representing the canner be established in each community where peas are grown and canned.

"Second, That the pea growers of each community and the canner mutually assume the responsibility of organizing an annual conference at which the whole problem of growing peas, canning them, and marketing them shall be fully covered so that all parties will understand more fully each other's problems and responsibilities.

"Third, That because pea canners differ greatly in operating efficiency and are located in separate sections where customary arrangements are vital to the quality of finished products, and because unsettled market conditions make a prediction of future prices uncertain, for the present let all matters relating to price and method of buying be left for adjustment between the growers and canners of each locality."[1]

Importance of Relationships in Country-wide Marketing. — There are very few local communities where the annual volume of commodities amounts to more than a relatively insignificant quantity on the markets of the country. For this reason the output of the usual local shipping point is disposed of to a comparatively small number of wholesale middlemen. The quantity of business for the usual local enterprise is so small that it is not economically feasible to employ an expert whose experience is essential to the sale of commodities upon those markets only which would afford the best prices at a given time. Consequently, the relatively small marketing enterprises of individual communities, so long as they remain disconnected or unfederated, are obliged to sell their commodities under conditions which do not bring the best prices. Neither adequate supply and demand information nor the necessary distributing connections are available to local middlemen unless they are a part of an organization sufficiently large in size and scope of operations to maintain these essential relationships over both local and country-wide areas. Virtually all of the conditions (discussed in Chapter XVI) making possible the determination of truly competitive prices under the modern commercial system are the outgrowth of organization. The objects of organization, whether of the usual private *exchange* type or of the more uncommon coöperative *federation* type, are to establish and maintain working rela-

[1] University of Wisconsin, Agric. Ext. Circular, No. 136; *Hoard's Dairyman*, Vol. LXI, No. 6, pp. 232 and 236.

tions without which the complex problems of country-wide marketing are not likely to be solved.

Organization is essential to the establishment of all of the important relations out of which funds originate for employing experts to render vital services which it is impossible for each local unit to obtain alone. The principal things which are beyond the scope of the authority and means of local communities but which are fundamental to efficient marketing have already been noted in the classification under country-wide relationships. Marketing by federations is the means of guaranteeing to each local unit those services which it cannot obtain through other means. It is the form of organization which makes it possible to apply scientific principles over the portion of the marketing system for which the ederation is developed.

Because the managements of federated organizations are in a position to consider all of the interests of an industry in proper balance and from a long-time point of view, and have done so in many notable instances, a number of these organizations are overcoming the weaknesses of the regular marketing system to a remarkable extent. This is the case with federations developed in Denmark, Siberia, New Zealand, Canada, and the United States, and other parts of the world.

What Federation Accomplishes for Agricultural Industries. — Organization for the purpose of applying economic principles in marketing seeks to establish dependable facilities for the handling and distributing of physical commodities, and to provide the least speculative of all mechanisms for the measurement of the various psychological and physical forces which determine competitive values or prices. Unfortunately, this is not generally appreciated. In fact, large numbers of farmers, in expressing their motives for organizing, are certain to indicate that "cost of production plus a profit" is among the chief objects to be obtained. Others contend

that organization will enable farmers to "fix prices" upon their commodities, implying that all who may thereafter desire to farm in the particular line will be assured prices high enough to leave a profit above the costs of production. Indeed, it is a common thing to hear farmers say that the "wicked law of supply and demand" is to be destroyed by the machinery which organization brings into operation. These, however, are mere suppositions on the part of people whose supply of facts is too limited to enable them correctly to judge the objects and accomplishments of efficient competitive marketing organizations.

In California, where almost every kind of farm product is being marketed by highly integrated marketing systems, the idea of organizing to overrule the law of supply and demand was discarded long ago. Many years of experience on the part of exceedingly efficient marketing organizations, like the California Fruit Growers' Exchange, have proved definitely that supply and demand conditions must be heeded. In fact, farmers of California have learned that organization itself serves its greatest purpose in making it possible to observe exactly what this law of supply and demand means, how it works, and therefore how products may be marketed to the best advantage. Careful investigation of these organizations has revealed that their success lies in the certainty with which essential relations both of the local and of the country-wide sort are maintained. In substance as well as in theory the numerous federated marketing organizations of California are strikingly similar. Furthermore, they all apply the principles of business success in endeavoring to render efficiently the essential marketing services elaborated in earlier chapters of this book. As a general rule, they have overcome the characteristic weaknesses of the regular marketing method. Duplication of equipment and of operating managements has been eliminated. Storing in the interests of both farmer and

consumer has been developed. Market feeding is scientifically done. In a word, these organizations represent in the most advanced form the application of economic science for the correction of former evils in marketing and for the efficient rendering of necessary services between farmers and consumers.

Federations Consolidate and Coördinate Marketing Activities. — The general plan of organization is based upon the importance of (1) relations between farmers and a middleman to render assembling and other services at the local shipping points; and (2) relations between a series of local shippers and the wholesale dealers scattered over a nation-wide market. Hence assembling establishments, like grain elevators, fruit-packing plants, fruit-drying factories, and others are maintained locally to provide such services as assembling, grading, packaging, processing, and to some extent storing and financing. It should be noted that one local plant of this kind suffices to meet the needs of farmers in each community. Where more of these plants formerly existed, consolidation generally has merged them into one coöperative plant. All of these local units are then federated into a single selling organization charged with the responsibility of maintaining country-wide relations. In some cases integration extends from farmer to retailer, in others from wholesaler to consumer, and in still others from farmer to wholesaler only. Many factors influence this problem of rendering the service of distributing. Generally integration from the farmer's end of the line extends to the wholesaler at the terminal or local distributing point. Thus, for example, the twenty-four packing plants and associations forming the local units of the California Walnut Growers' Association, shown in Fig. 46, are federated and own the central plant at Los Angeles, indicated by the black diamond. Generally federations, in disposing of products, utilize the established private wholesale distributors in each

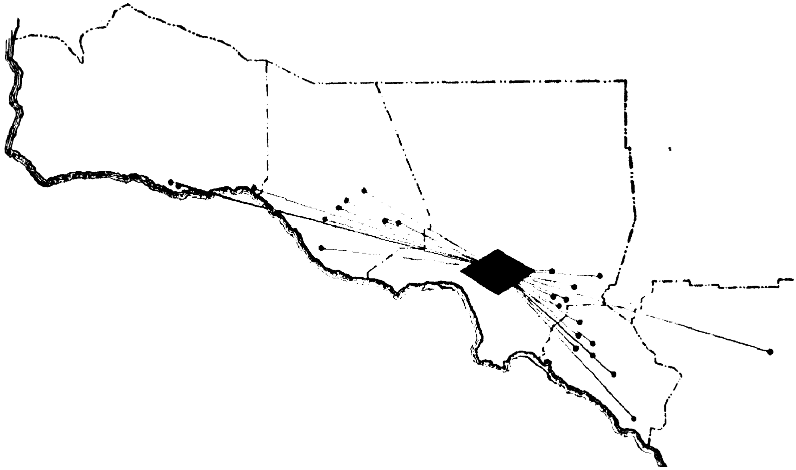
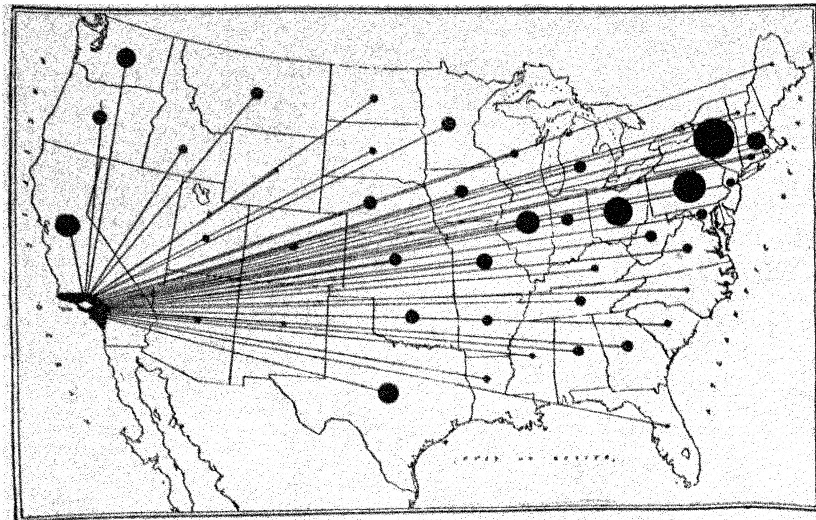


FIG. 46. — INTEGRATED SYSTEM OF THE CALIFORNIA WALNUT GROWERS' ASSOCIATION

In the upper picture the black diamond represents the central office and by-product plant at Los Angeles. Each dot connected with the central plant by lines is a local walnut association and its packing plant similar to the Santa Ana plant shown in the lower picture. (Courtesy California Walnut Growers' Association.)



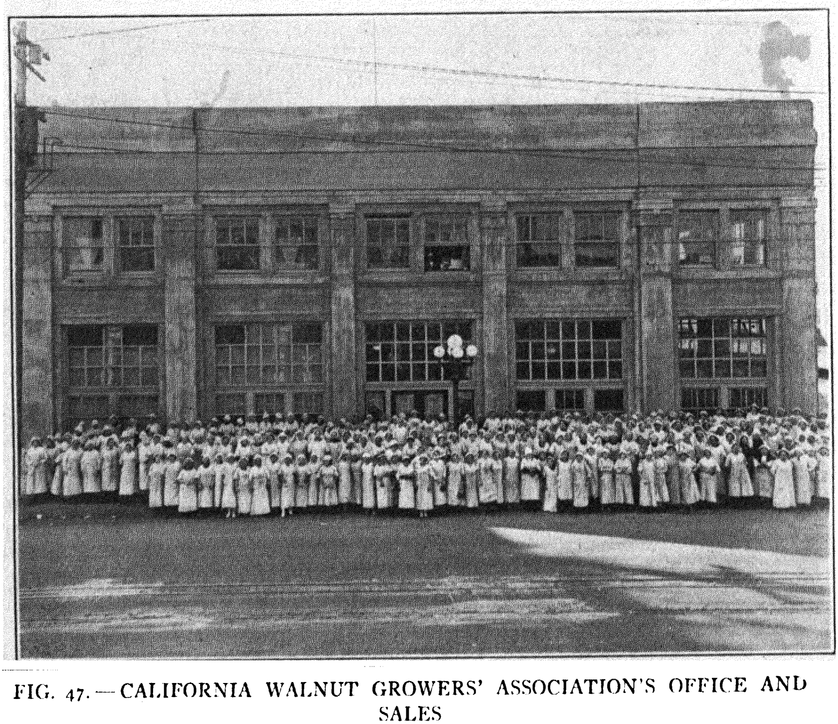


FIG. 47.—CALIFORNIA WALNUT GROWERS' ASSOCIATION'S OFFICE AND SALES

In the upper picture the sizes of circles indicate the relative quantities of walnuts sold in each state. For example, New York received over 4,800,000 pounds; Illinois, 1,500,000 pounds, and Florida about 30,000 pounds. The lower picture is the central office and by-product plant, employing 400 women. (Courtesy California Walnut Growers' Association.)

part of the country as far as possible. In Fig. 47 is shown the quantity of walnuts sold by the California Walnut Growers' Association in each state. The same plan of organization is being followed extensively in other parts of the country by

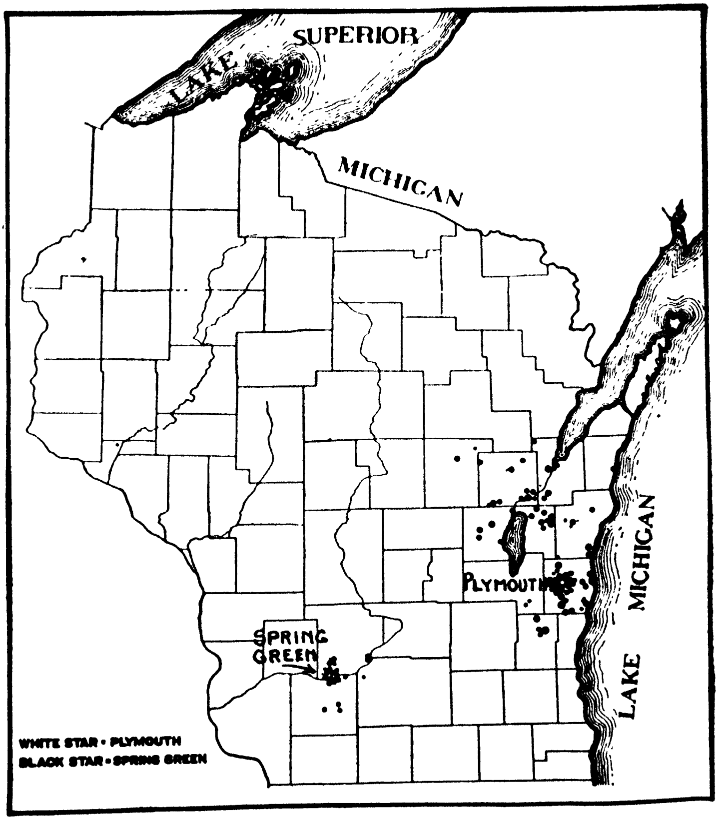


FIG. 48.—THE INTEGRATED SYSTEM OF THE WISCONSIN CHEESE PRODUCERS' FEDERATION

Each small circle represents a local cheese factory of which 120 are members of the Federation. The smallest contributed less than 3000 pounds of cheese, the largest over 300,000 pounds. Cheese is assembled at the main warehouse at Plymouth and at a smaller warehouse at Spring Green. (Courtesy Wisconsin Station.)

concerns like the Wisconsin Cheese Federation with its local units and its volume of sales as indicated in Figs. 48 to 51.

Similar illustrations might be constructed for each of the California coöperative federations as well as those in other parts of the country showing for each, local units, a central

distributing exchange, and the volume of sales by states or districts. All would emphasize the important fact that commercial agriculture is broken into exceedingly small parts on both the producing and the consuming side, and that volume is necessary to the maintenance of an organization capable of effectively marketing products over an immense area. For many of the smaller agricultural industries the entire

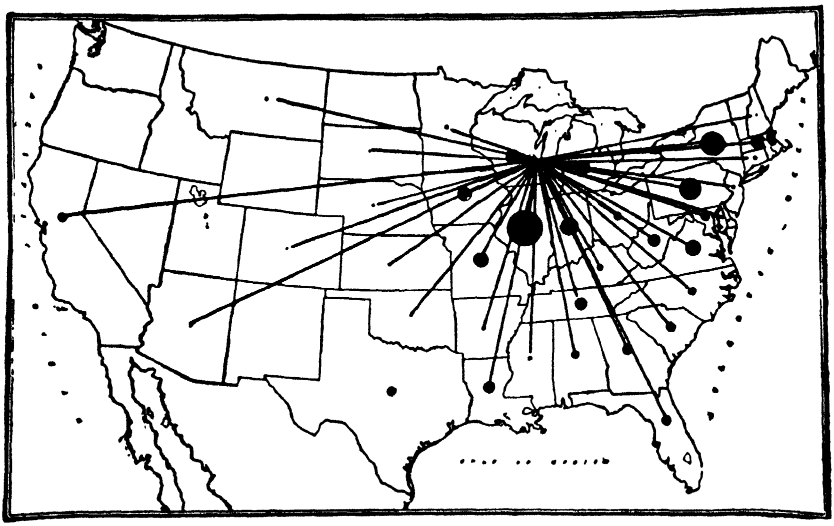


FIG. 49.—CHEESE SALES BY STATES FROM WISCONSIN FEDERATION

The sizes of the circles indicate the relative quantities sold in each state. For example, Illinois received about 3,200,000 pounds, Indiana 780,000 pounds, and Ohio 108,000 pounds. (Courtesy Wisconsin Station.)

industry when consolidated for marketing purposes may be no more than large enough to provide the minimum quantity required for the maintenance of an efficient distributing organization. Among the larger industries, however, consolidation into a single organization might give a volume altogether too large for efficient operation. Consolidation and coördination, if they are to render services efficiently, must not develop beyond the point where they will cease to operate at a minimum expense to farmers and consumers. That they should be developed up to this point is obvious.

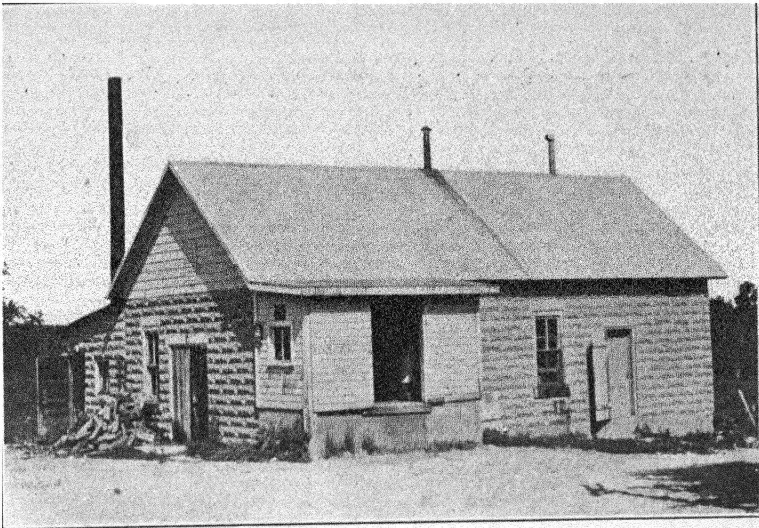


FIG. 50.—A TYPICAL LOCAL CHEESE FACTORY

Each circle in Fig. 48 represents a local cheese factory of this sort.

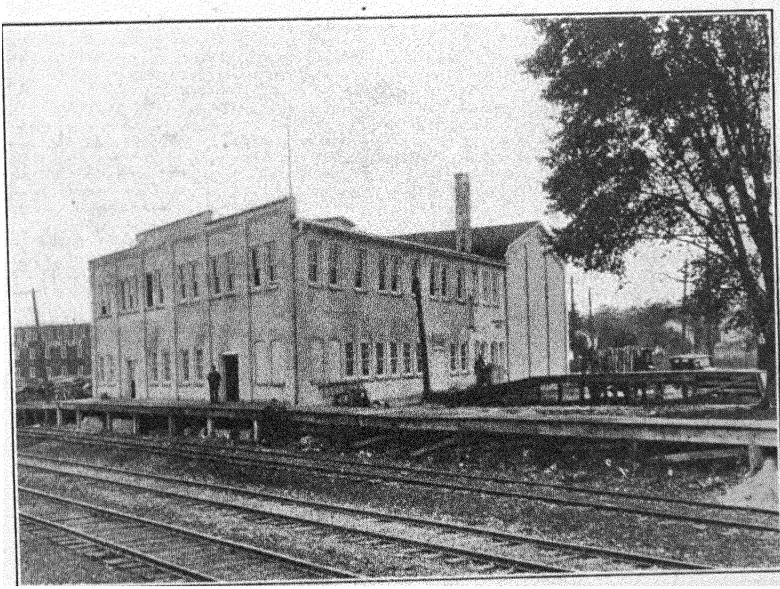


FIG. 51.—CENTRAL WAREHOUSE AND OFFICE OF THE WISCONSIN CHEESE PRODUCERS' FEDERATION

Almost 12,000,000 pounds of cheese is assembled here annually from 90 factories for subsequent distribution all over the United States. (Courtesy Wisconsin Station.)

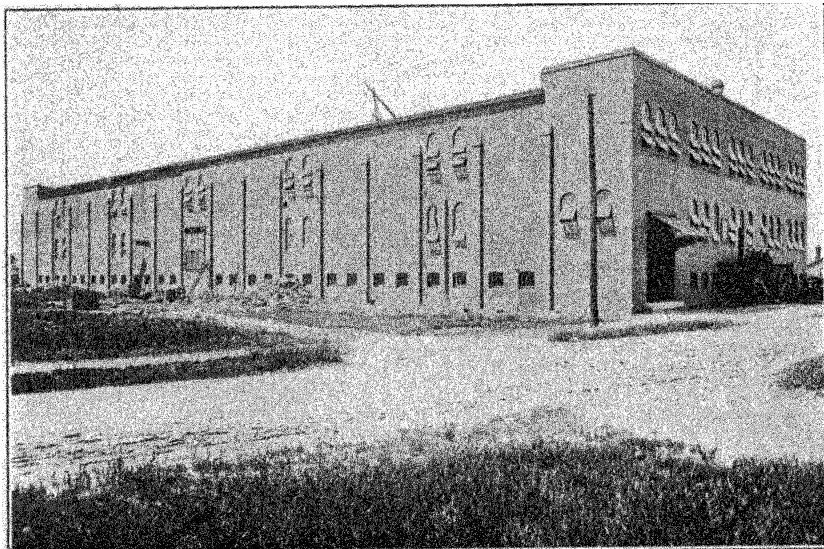


FIG. 52.—LARGE WAREHOUSE OF A WOOL GROWERS' FEDERATION

The Canadian farmers have made great strides in establishing coöperative middlemen to render marketing services efficiently. This is the central plant of the Canadian Coöperative Wool Growers. (Courtesy *The Farmer*, St. Paul.)

SUMMARY

1. Improvement in the marketing system requires that consolidation of uneconomic and therefore inefficient middlemen and their plants be brought about wherever needless duplication exists. Only by such action will it be possible to reduce operating expenses at local country points.

2. Larger income for farmers hinges upon the development and maintenance of working relations between farmers and the private or coöperative middleman serving them. The purpose of establishing working relations between farmers, middlemen and consumers is to increase the proportion of products of high quality and to impress each farmer with the fact that he must decide for himself whether he can afford to produce more or less of a given commodity for the price which his organization is able competitively to secure for him.

3. Efficient distributing organizations depend upon local units for commodities to supply the market. To develop the greatest efficiency requires the employment of the most expert management obtainable for building up country-wide marketing relationships. Management of this sort is not justified unless the volume of business is large enough to stand the expense. Hence to insure adequate volume the organization should include as many as possible of the farmers growing the given commodity. No more assembling or processing plants should be operated than are required to render services most efficiently to all those requiring such services. Similarly, the fewer distributing organizations there are the better, provided none is either oversize or undersize.

4. Organization on the commodity basis for a large part or the whole of a given agricultural industry tends to eliminate hazards in farming and in marketing which were inherent results of the old unorganized scheme of marketing. In other words, greater stability is assured because organization represents the kind of machinery required to cope with a problem of this magnitude. No individual produces a large enough quantity to enable him efficiently to distribute products over a whole nation. Most middlemen at present do not handle a volume great enough to accomplish this task very well. These are the reasons why industry-wide agricultural organization is essential to efficient marketing.

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CHAPTER XIX

GOVERNMENT AUTHORITY IN RELATION TO MARKETING

IMPROVEMENT in marketing is closely associated with government activity of some kind. Public interest is divided in this matter, some advocating that government authority be used to finance and operate Federal or state owned marketing enterprises while others contend that the state plays its part best as an alert, decisive, but unbiased umpire. In a measure, both of these claims are reasonable. Under practical conditions the question arises as to which service the government must render first. The answer rests upon the fundamental conception which people hold regarding individual effort versus government responsibility as a means of doing the work of marketing.

Farm products are handled, and under any conceivable system will continue to be handled, by numerous local business units on many different steps. In their business relations these middlemen develop a competitive struggle which must be regulated in the interests of efficiency and public welfare. Regulation is hopeless without an umpire to judge the character of competition in the light of definite standards. Both standards and umpire are useless without the power to enforce decisions. For these reasons if the government does anything it must develop fully the characteristics of a helpful umpire. This is a service which individual effort cannot provide. Under any circumstances it is a necessary duty of the government to all of its constituency. Furthermore, in acting as the umpire, government authority with its tremen-

dous power representing diverse interests, is not obliged to compete with individuals whose power and scope of action are relatively small.

The fundamental functions of government in relation to the marketing of farm products are to promote conditions giving individual farmers, consumers of farm products and a reasonable number of middlemen maximum opportunity for profitable occupation and human happiness. To this end, Federal, state and local governments are obligated, whether they realize it or not, to perform in behalf of their respective constituencies the following five basic services:

1. To maintain a policy of equality of opportunity for all in proportion to their efficiency and in harmony with the public welfare.

2. To investigate the machinery and functioning of the marketing system.

(*a*) To determine what the system is, and what it does and what the consequences of its operation are.

(*b*) To determine superior methods of marketing as well as places needing improvement.

3. To establish minimum standards of competition.

(*a*) By bringing competitors together to fix the rules of the competitive game.

(*b*) By causing competitors to regard the government as the umpire ruling in the common interests of all involved.

4. To enforce minimum standards of competition.

(*a*) By enabling the umpire to judge competitive acts.

(*b*) By penalizing those failing to abide by the established rules.

(*c*) By eliminating those refusing to comply with set standards.

5. To provide education of a general and a specific nature concerning marketing.

(*a*) To promote adoption of superior marketing methods among all agencies.

(*b*) To promote that balance in the development of marketing agencies promising generally the highest individual and public welfare.

In attempting to do these things which no individual or group of individuals can accomplish for itself the government faces a responsibility in fulfillment of which it must be free to use the most expedient of different methods.

The state may assume a variety of relations to marketing.

These may be classified briefly under one of the following heads:

1. Inaction, or *laissez-faire*, leaving to competitors the privilege of a free-for-all struggle without standards of competition or protection to the public.
2. Regulation of the standards of competition and corresponding protection to the public.
3. Regulation of individual competitive or monopolistic enterprises themselves.
4. Government ownership of marketing facilities with private or coöperative operation.
5. Government ownership and operation through government middlemen.

Just which one of these relations or how many of them the government should develop depends upon the circumstances of time and place. Obviously, those relations should be promoted which enable the government best to perform its larger obligations to all the people, in this case particularly farmers and consumers as well as middlemen. The expediency of using the different forms of state action will become more apparent in the following discussion of each of the five primary objects of the government in relation to marketing.

Government Only is Capable of Maintaining Equality of Opportunity. — It is scarcely necessary to remind the reader that society is divided into numerous groups having individual interests which do not fully harmonize. In marketing especially, one group is buyer while another is seller. The problem of evaluation requires compromise on the basis of facts. These facts become the individual possession of one group by virtue of prior action, greater persistence or for other reasons, to the disadvantage of the other group. As a consequence, one party exchanges goods or services at more or less than the value justified by full facts. From such a condition as this, which illustrates one only out of numerous problems of competitive existence, antagonisms, underhanded practices and a series of unethical and harmful tactics are

developed which injure not middlemen alone, but both farmers and consumers as well. Inevitably these characteristics of individual and group competition limit or destroy opportunity for large numbers of people, including those both directly and indirectly concerned.

Fortunately, we have the benefit of experiments of different governments that have followed a policy of leaving everything to individuals as contrasted with a program of attempting to provide equality of opportunity for all. The results of these historical experiences have amply demonstrated that human welfare is protected and fostered most when government exercises its authority to provide equality of opportunity by restraining those whose actions are harmful to others and by educating all to higher planes of effort and competitive relations. This has been particularly the case in the marketing of farm products. Consequently, while the state may follow a *let-alone* policy with respect to middlemen who market farm products, this would be undesirable for all classes. Modern marketing is so complex that an umpire is necessary. By setting up this umpire, however, and in providing information to be used as the basis of fixing standards and of enforcing them, the government necessarily rejects the plan of leaving individuals and groups to shift for themselves in a *hit-or-miss*, unregulated scheme of competition.

Government Only Can Develop Comprehensive Promotional Investigation. — It is generally accepted that superior methods are accountable for a great deal of progress. Yet the spread of these efficient means of doing business is relatively slow. Often the reasons for the superiority of a method do not appear on the surface and few outside of a small number of exceptional middlemen of unusual initiative, energy or resources, are able to gain the advantages which better methods provide. As a consequence improvement in marketing comes more slowly than it should. Generally mid-

dlemen who discover improved methods retain them as secrets and capitalize them as business assets. They could not be expected to do otherwise because these discoveries are the results of experience and difficult research and experimentation. Besides business enterprises cannot assume responsibility for doing work of this kind in behalf of other competitive interests or even of noncompetitive concerns. In fact, the only authority representing the general economic advancement of all members of society is the government itself. If this sort of general work is to fall upon any one, that party must be the state.

To illustrate the importance of constant and thorough research as a means of promoting rapid improvement in the marketing of any specific product the progress of butter making is most enlightening. The first creamery in the United States was built in 1861 at Walkill, Orange County, New York, by Anson Slaughter. It was a truly coöperative venture undertaken to bring about a high degree of specialization. This specialization was accomplished by employing a middleman. Ten years later comparative figures indicate that creamery butter sold on the New York market at 45 cents per pound when farm butter brought only 25 cents. The significant point is that during a period of ten years this superior method of making butter with its premium of 20 cents per pound was so slowly introduced into other sections of the United States. Butter was being made on farms and shipped to New York during this entire period, but the idea of improved marketing was not comprehended and appreciated in distant States except by a few of the most energetic butter dealers. The only people obtaining knowledge concerning the operation and merits of the butter-factory system were the few dealers of means who journeyed to the New York market and had the initiative to visit creameries. It was through the initiative of a butter dealer, for example,

that Iowa received her first creamery in 1871. A Mr. Van Dusen, after a special visit to the New York market and certain creameries, impressed a friend, Mr. John Stewart, with the idea of a plant which was put up immediately for the purpose of reaping the 20-cent premium above the price of farm butter. These men saw clearly the possibility of receiving cream instead of every description and quality of farm butter and making a superior product from which large profits later resulted.

The introduction of the creamery system into Iowa was delayed ten years because a Mr. Van Dusen did not decide earlier to investigate the possibilities for improvement. Subsequently the farmers of Iowa delayed another ten to fifteen years in starting their well-known coöperative creamery movement because it took that length of time for them to discover what government investigation could have shown in one year. It took all this time for them to realize that far higher returns could be obtained by a coöperative creamery system than by making farm butter or by selling their cream on a level with farm butter prices to private middlemen.

The expansion of the dairy industry was rapid following this discovery by farmers. The following is a typical report of the decade 1887–96 to the Iowa Agricultural Society:

"Most of the creameries are being bought up and run on the coöperative system by the farmers themselves."[1] This indicates the response which attends any program of constructive research in the field of marketing economics. The ideas discovered by the haphazard investigation of an Iowa butter dealer introduced the system into the state. A definite policy of constructive research by the government could have introduced the system much earlier with great financial benefit to the state. Similarly, government investigation might have shown which agency would probably have given the greatest

[1] Iowa Agricultural Society, 1893, Delaware County, p. 272.

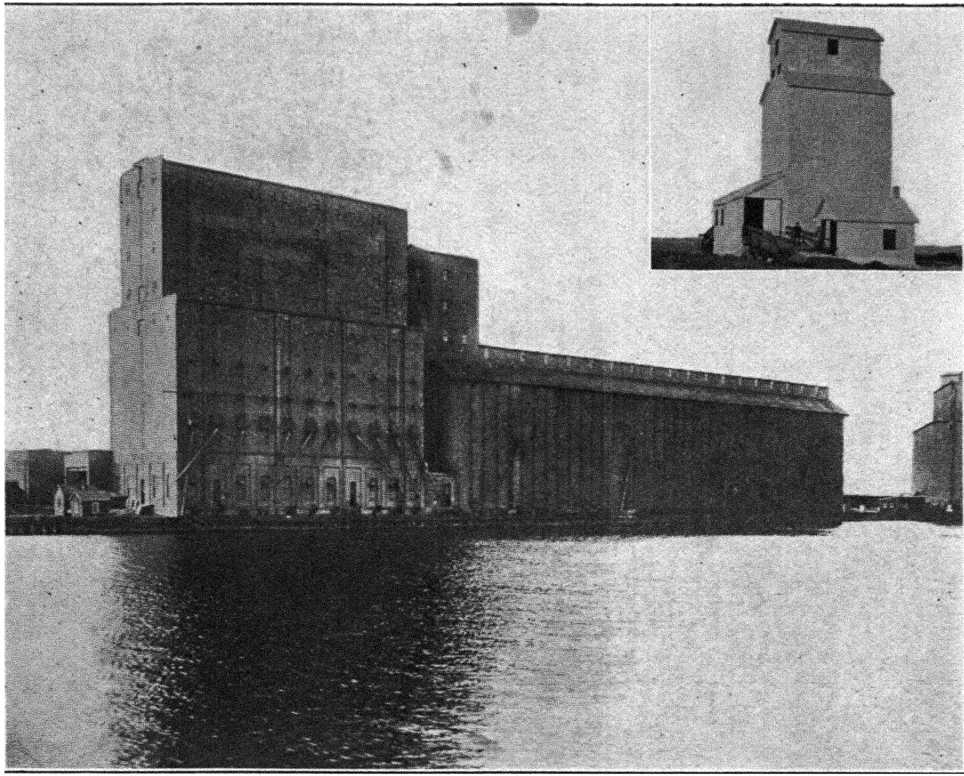

FIG. 53.—COÖPERATIVE LOCAL AND TERMINAL ELEVATORS

As a result of impartial government investigation the Canadian grain growers established a remarkable coöperative middleman system to market their grain. Their company, the United Grain Growers, Limited, assembles grain at its 340 local elevators, each like that in the upper right-hand corner of the illustration. It also operates terminal elevators for train-load and ship-load handling of grain. The one shown has a storage capacity of 2,500,000 bushels and is located at Fort William, Ontario. (Courtesy United Grain Growers, Limited.)

returns, considering all sides of the problem, without ten years of experience in which farmers received far less than the marketing system could have paid.

Government in its powers and possibilities of investigation is not by any means confined to the narrow class interest which dominates individuals or groups in their partisan participation in matters of this kind. While some governments are inclined to reprehensible partisanship, others have proceeded in an unbiased manner to consider all the facts and decide important matters upon strict grounds of economic efficiency and general public welfare. A noted example of this is the work of the Elevator Commission of the Province of Saskatchewan, Canada, Report of 1910. In this case, farmers clamored for government ownership and operation of the grain-marketing system, including local and terminal elevators. The findings of the commission revealed that government middlemen could not hope to compete with either private or coöperative effort in this particular case because of the poorer facilities and support.[1] In a constructive manner coöperative ownership and operation of an elevator system was recommended as a means of consolidation and further improvement instead of a state-owned system. Ten years of experience with the program built upon the deliberations of this governmental commission have demonstrated the value of facts before acts in any moves seeking constructive results. The United Grain Growers, Limited, a monument of coöperative efficiency, is an example of rapid growth and decided improvement because careful investigation discovered the proper means of solving a marketing problem and centered interest upon a definite program of action. More of this type of impartial inquiry and less of the prejudiced kind are essential to rapid progress and maximum public welfare.

[1] Report of Elevator Commission of Saskatchewan, 1910, pp. 94–98.

Government Must Establish Minimum Competitive Standards. — In an unregulated competitive régime middlemen range from individuals of the greatest capabilities to those of extremely small caliber. The former realize the value of proper standards; the latter do not. Private endeavor to bring men of these extremes together to agree upon practices and other competitive standards generally fails except where a large enough proportion of all the middlemen involved are broad-minded, public-spirited individuals. The presence of great numbers of small, petty middlemen in the systems of marketing most farm products directly prevents the making of competitive standards through private initiative. Private endeavor to fix standards becomes authority only to the extent that individual knowledge and appreciation lead competitors to meet voluntarily and reach conclusions that they will thereafter mutually enforce. On every hand attempts have been made by middlemen to set standards, but almost invariably these have failed. Universal experience of this sort has led all classes in society to regard the government as the one authority capable of compelling all parties to come together and from their deliberations to establish rules to govern certain phases of middleman activities.

Generally, the more efficient middlemen appreciate the aid which government provides in making standards. Always, unfortunately, large numbers are unwilling to abide by the standards set and refuse to recognize the authority of government to make these rules of the game. The failure of private authority to bring about voluntary enforcement of rules, is primarily due to the unwillingness of a small minority of middlemen to accept the standards fixed. When public welfare demands standards which are not voluntarily enforceable it becomes the duty of government to use its authority as a means of compulsory enforcement. It is necessary to cause all competitors to accept the government as an um-

pire to see how the regulations are observed and to rule those out who play unfairly.

In the marketing of farm products many standards are necessary. Only recently has their importance been realized to any extent even by the government. It is not surprising, therefore, that unregulated competition among middlemen should have led to conditions which are unpleasing not only to farmers and consumers but to many of the more public-spirited middlemen themselves. Now as never before people are demanding compulsory establishment and enforcement of proper competitive standards. Accordingly, various departments of government such as market divisions or bureaus are being established to develop this service.

The fixing of standards necessarily has to do with marketing services, marketing methods and marketing agencies. The extensive determination of suitable commercial grades for many farm products and their promulgation illustrates the making of competitive standards for the performance of the necessary marketing services.[1] Investigations made by unbiased government commissions to determine the true economic consequences of local versus federated or integrated systems of coöperative or private middlemen for marketing grain and fruit followed by widespread publicity serve to illustrate the establishment of standards to guide in the application of marketing methods.[2] Similarly, the recommendation often against popular clamor that coöperative agencies instead of governmental agencies be developed to solve certain marketing problems, or in other cases, that private agencies be retained instead of developing either governmental or coöperative middlemen, is indication that standards are even formulated for the kinds of middlemen suitable to proper competition under given conditions.

[1] See annual reports of Federal and State Bureaus or Divisions of Markets.

[2] See 1910 report of the Elevator Commission of the Province of Saskatchewan, Canada.

Thus far, government fixing of standards has related primarily to products. As time goes on and the complexity of more highly commercialized existence becomes greater, standards with respect to marketing methods and agencies must inevitably become increasingly important. Even now this phase of the marketing problem is a matter of intense interest, especially to farmers. For example, there is the present controversy over whether farmers are to have the right to collective bargaining. Furthermore there is a disposition to attack federations built up to apply economic principles in a systematic manner to the marketing of products comprehensively according to commodities or distinct agricultural industries. Again, certain interests seek special consideration or exemptions from law which assuredly must lead to serious discriminations or conditions of unfair competition. These are problems the solutions of which lie altogether beyond the scope of private or group effort. They are strictly matters for government attention and decision and as such depend upon the interpretation of competitive standards.

The Government Must Enforce Minimum Standards of Competition. — Both farmers and consumers are familiar with the operation of the pure-food laws, of regulations concerning weights and measures, and of provisions to protect the public against unsanitary conditions in the marketing of foods. These laws became necessary because competitive standards were not voluntarily made and enforced. For the same reasons the government is extending this service to the establishment and enforcement of standards throughout the field of marketing farm products. The most important problems, though less understood than the enforcement of regulations concerning grades, weights, measures, storage, and other more or less tangible or visible activities, relate to the motives, ideas, or plans which govern middlemen as well as farmers and consumers in their relations. These are the in-

tangible forces which after all puzzle the public because they are unseen. While invisible, these forces, however, leave very definite though for the most part hidden evidences of their influences upon public welfare.

Foremost among these problems of invisible competitive standards is the present movement to build a series of powerful coöperative marketing agencies to compete with private agencies. Upon what ground shall the government decide this controversy, one which has been carried not alone to the courts but to the legislatures as well? Public welfare demands impartiality in the decisions. To give an unbiased decision requires the drawing of fundamental distinctions between parts of a problem at present greatly confused. The questions of permitting private integration, coöperative integration and so-called competitive bargaining by farmers are each parts of the issue. These in turn are confused with the question of monopoly power. Apparently the distinctions drawn to date are based on superficial considerations only. Private and coöperative marketing agencies following similar marketing methods in rendering the same essential marketing services are differentiated wholly on the ground that one has capital stock and the other none. Again it is assumed that farmers are attempting by so-called competitive bargaining to do what others accomplish in the operation of definite local or federated coöperative middleman systems. Until the confusion of these three issues is overcome through the fixing of standards by the government and their rigid enforcement, controversy and misunderstanding are bound to continue as a source of unfair competition.

There must be no unfair discrimination between private and coöperative agencies. Moreover collective bargaining in agriculture should be accorded a place in competitive practices according to its motives and consequences. Economic principle and not sentiment or political domination is the

only safe ground upon which government can fix and enforce standards seeking to govern the ethical level of competition in marketing. It has been argued that collective bargaining by farmers implies monopoly. If this is the case it cannot be tolerated regardless of whether or not courts or legislatures attempt to give it justification. On the other hand, if collective bargaining by farmers be interpreted as meaning the coöperative middleman systems such as the California Fruit Growers' Exchange or the California Associated Raisin Company, then all middleman organizations representing individual units and central selling offices or brokerages must also be accepted as cases of collective bargaining. To these private groups of collective bargainers must be given the same privileges as to coöperative groups of collective bargainers.

Apparently collective bargaining as desired by farmers is not synonymous with actual middleman systems or else there is enough difference between private and coöperative middlemen rendering similar services by the same methods to justify promotion of the one to the exclusion of the other. Obviously, the distinctions which have been drawn are not fundamental. Under modern commercialized conditions on a country-wide basis most marketing is also collective bargaining. This is the case whether the agency doing the work is private or coöperative. A large private enterprise brings to bear collective bargaining for its thousands of patrons fully as much as a large coöperative enterprise. On this ground both are entitled to equal protection and privileges so long as they give to the public the benefits of competitive prices. But whenever monopoly arises for one or the other unfair competition is established which the government must rule out if it lives up to its responsibilities.

As competitive marketing enterprises both private and coöperative middlemen seek to render essential services in connection with the actual handling of farm products. They

must do this regardless of what the price level may be. Their success comes from efficiency rather than the price level. The relative volumes of business give them proportional bargaining power, but in spite of this, price levels change and the efficient enterprises continue to operate and make profits or savings whether prices are high or low. They do this by virtue of efficiency rather than ability to obtain unusually good prices through superior bargaining power. The real secret of their success lies in the development of physical marketing machinery and plans by which markets, scientifically supplied with products, yield stabilized prices from which small instead of large expenses must be deducted. From the very nature of marketing organization, whatever collective bargaining means to the coöperative agency it must also mean to the private agency.

The term *collective bargaining* used so much by farmers and others does not mean the same thing as the development of concrete organizations to do business by coöperative or private middleman systems. On the contrary, it refers definitely to a means of changing the price level, generally upward, after the inertia of customary conditions has failed to give way. Moreover, "collective bargaining instead of implying monopoly, through which price-fixing is supposedly made possible, is more nearly group protest against the continued existence of price levels or other factors which have become intolerable through the mere weight or inertia of custom. Collective bargaining certainly implies group action, but does not imply monopoly or price fixing. It does mean the existence of impressive group indignation and publicity which throws the spot light upon prices that have become unreasonable. Where the single individual would certainly bargain in vain, concerted protest carries an appeal to the fair-mindedness of the public in general. United effort to inform the consumer that continued low prices will mean withdrawal

of farmers from the given line of production paves the way for changes in price levels that would otherwise be met by serious misunderstanding and protest from consumers. Those changes which are effected by collective bargaining are compromises which have been negotiated after extended discussion and investigation involving farmers, middlemen, and consumers. The fact that the compromise price agreed upon has in some cases stimulated increased production, attended by price reduction later to prevent oversupply and price demoralization, is suggestive that the collective bargainers were hardly able to control the supply for the purpose of price-fixing. Instead of price-fixing by monopoly power through group control of supply, the collective bargainers repeatedly have been obliged to attempt reduction in supply, and this reduction has been accomplished by price reduction. In other words, price has regulated the supply, instead of supply regulating the price. This was true in the Des Moines, Iowa, milk producers' experience. There the high price, tentatively set, stimulated a larger number of farmers, over a wider territory, to prepare for placing milk on the market. Oversupply was averted by reducing the price and thus eliminating the marginal or prospective milk producers.

"In many lines of farm production, aside from the inability of large numbers of widely scattered farmers to agree to a fixed plan of action, the variations of weather and seasonal output make reliable supply calculations virtually impossible. Yet in the absence of power rigidly to control supply, without the aid of price fluctuations, those seeking monopoly are deprived of a realization of their ambitions.

"Monopoly is not essential to collective bargaining, therefore, because control of supply has not been gained, though repeated attempts to gain such control have been made. The prices agreed upon as a result of collective bargaining

are merely evidence of compromises which have broken the inertia of custom. The new price level is merely an attempt to render greater economic justice, and above all, to guarantee an adequate supply of products for consumers, who, in the absence of modified prices, would certainly have felt the pinch of reduced supply. The compromise prices are not arbitrary iron-clad contracts, involving group limitation of supply for the purpose of gaining what the traffic will bear, and therefore do not contain the elements of monopoly prices.

"The essential purpose of collective bargaining is the changing of price levels and not the conduct of enterprises which render a series of economic services. Most of the commonly known coöperative marketing concerns, on the other hand, are concerned with the efficient rendering of essential marketing services, regardless of what the price level may be. Thus the machinery of collective bargaining is largely intangible, it is a movement, a protest which brings to the people involved a realization that a different price level is necessary. In contrast to this the usual coöperative marketing concern has a constant series of services to perform. Its aims are not realized when a price compromise has been reached. Only as its machinery functions with greater and greater efficiency and savings or profits are made does the usual coöperative agency fulfill its mission.

"These differences between collective bargaining and common coöperative marketing, though both are forms of coöperation, guarantee that, no matter how much collective bargaining is misrepresented with attendant injurious results, these detrimental effects need not operate as a boomerang to the great number of unnoticed and successful coöperative concerns which derive their advantages from business efficiency rather than price levels."[1]

With these distinctions between private and coöperative

[1] American Association for Agricultural Legislation, Bul. No. 6, pp. 47-48.

marketing systems and collective bargaining there should be no difficulty in the establishment of competitive standards giving to both private and coöperative organizations the right to function so long as they are competitive and to individuals the right to collective bargaining so long as this does not result in monopoly power and its harmful results. Decisions or standa ds along this line, as with all other standards requiring enforcement, cannot become effective unless backed by the government. Here as elsewhere nothing constructive is likely to result unless the government follows a rigid policy of considering these important problems upon their economic foundations and in the light of their real consequences. In the past, partisanship has been one of the strong criticisms against a democratic form of government and the charge has doubtless been well founded.

It is in this connection that the question of regulation by the government of competition, of individual competitive enterprises, and of monopoly versus government ownership and operation comes to the front. Many contend that the government cannot at the same time serve the dual purpose of being a good umpire and regulator of the standards of competition and investigate all phases of private effort while competing with private initiative in the operation of publicly owned marketing facilities. Although there is merit in this contention, it is by no means a conclusive argument. When all phases of regulation have failed to correct evils of serious proportions and government ownership and operation promises relief this action becomes expedient. It should be emphasized, moreover, that the failure of private or coöperative agencies properly to work with the government as an instigator and enforcer of standards must inevitably be a principal factor in causing the government to enter the field of marketing either as a competitor of other agencies or in the capacity of a marketing monopoly.

Government Must Educate All Concerning Marketing.—Perhaps the greatest force in marketing is public sentiment. In any event it is a tremendous power for constructive improvement or, if unintelligent, for destruction. Public sentiment can be no more constructive than the idea upon which it is grounded. For this reason the chief duty of government in the long run in relation to marketing is to educate all classes to a real comprehension and appreciation of the economic principles upon which marketing itself is founded. In a way this is being done. Progress, however, is exceedingly slow, because adequate financial and personal support has never been given. All other phases of government action in connection with marketing must fall short of the mark until people generally understand what marketing is and does. Constantly changing conditions and methods require continuous investigation. The information thus discovered, however, can become effective only through education. Without education in its various forms such as demonstrations, extension work of all kinds, and widespread teaching of marketing facts in the schools, no important part of the people can ever gain that knowledge or understanding of the economic principles of marketing which are essential to improvement.

No individual or group can attempt to give the public strictly unbiased facts for any important length of time. Competitive conditions do not permit it. Trade relations prohibit the disclosure of the most vital facts. As a consequence most private or coöperative educational matter must in the long run tend toward propaganda rather than education. Class interests usually try to dominate. The coloring which this gives tends to neutralize the strictly educational value of so-called educational publicity, a tendency which further emphasizes the necessity of the promotion by government of marketing education and the dissemination of accurate marketing information.

SUMMARY

1. The public generally looks to the government as a means of promoting improvement in marketing. The greatest service of the government in response to public confidence is to act as an unbiased umpire of competition among middlemen supported by adequate, impartial facts and the effective enforcement of decisions.

2. The government owes to its constituency assistance in the things related to marketing which individuals cannot do alone or by voluntary organization. These things may be classified as having to do with (1) maintenance of equality of opportunity; (2) securing by investigation or experimentation full facts about marketing; (3) establishment of minimum standards of competition; (4) enforcement of established standards of competition; and (5) education of the public to a comprehension of the economics of marketing.

3. Competition if unregulated does not necessarily mean the survival of the fittest in the sense of being the most helpful to society. It means the survival of the strongest for the moment because of some temporary advantage. Equality of opportunity means the chance for all to survive who give promise both of working efficiently and in harmony with the welfare of others. None other than the government is able to guarantee this essential condition of progress.

4. Economic progress in marketing depends upon the character of ideas more than physical realities. These are generally concealed and come to light only after investigation. General public welfare requires the government to specialize upon this fundamental task in order to promote constructive changes.

5. Competitors generally do not voluntarily come together to set standards to eliminate undesirable or reprehensible practices. For this reason the government is obliged to assume this duty in order to protect not only the middleman but the farmer and consumer as well.

6. Private authority is powerless to enforce standards throughout the field of marketing. For this reason compulsion is necessary. Under civilized conditions government is the only power to which the privilege of compulsion is granted. Hence government must enforce the standards of competition.

7. If standards are to mean anything they must rest upon fundamental economic fact and principle and must apply impartially to all agencies utilizing similar methods in the rendering of the same kind of services.

8. If education instead of propaganda is to be the basis of public sentiment as a force for improvement in marketing, the government must not only promote education in marketing lines but do so much more vigorously than in the past. To provide facts for education it must develop unbiased investigation of marketing conditions, systems and motives hitherto largely unappreciated.

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